THE CHEMIST AND DRUGGIST

Established 1859.

Chief Offices: 42 CANNON STREET, LONDON, E.C.
Branch Offices: 231 ELIZABETH STREET, MELBOURNE, VICTORIA, and EMPIRE CHAMBERS, YORK STREET, SYDNEY, N.S.W.

As an Official Journal

THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—

Pharmaceutical Society of Ireland.
South African Pharmaceutical Association.
Pharmaceutical Society of Natal.
Central Pharmaceutical Association of N.Z.
Otago Pharmaceutical Association.
Pharmaceutical Society of Queensland.
Pharmaceutical Society of South Australia.
Pharmaceutical Society of Western Australia.
Tasmanian Pharmaceutical Society.

CONTENTS: Vol. XLVII. No. 17.

	PAGE
Bankruptcy Reports	629
Brewers' Exhibition	615
Business Changes	633
Corner for Students	608
Correspondence	642
Deaths	623
Deeds of Arrangement	637
Editorial Comments:—	
Analysts and Medicines	624
Coming Saccharin Lawsuit	625
Business Relations with China	626
Drug-trade Cricket-clubs; Pharmacy in Guernsey; Drugs for Coolies in Ceylon; Newfoundland Cod-liver Oil, &c.	626
English News	609
French News	613
Gazette	637
Irish News	611
Irish Pharmaceutical Examination	634
Late News	637
Legal Reports	630
Literary Notes	636
Marriages	623
Medical Gleanings	636
New Books	633
New Companies and Company News	621
Next Week	644
Novelties	628
Photographic Notes	635
Scotch News	612
Society of Chemical Industry:— New York Section	614
Trade-marks Applied for	633
Trade Notes	636
Trade Reports	638
Winter Session	622

OUR 1896 DIARY.

THE publisher of THE CHEMISTS' AND DRUGGISTS' DIARY for 1896 has now practically completed the initial stages of the work in connection with it, and we begin to put the pages to press as soon as this issue of THE CHEMIST AND DRUGGIST is off our hands. We mention this for the exclusive benefit of firms who are still considering whether they will advertise in the DIARY or not. They should decide at once, and communicate with the publisher by telegraph, so that he may know what space they require. We cannot guarantee insertion of advertisements received after Monday next.

POSTCARD COMPETITION.

DURING the present month we invite subscribers and their employés to tell us, on postcards, the business benefits of THE CHEMISTS' AND DRUGGISTS' DIARY. Our object is to ascertain from as wide a circle as possible opinions regarding the utility of the DIARY, especially as a help in business. We do not object to, but would be glad rather if competitors add, suggestions which have occurred to them for increasing the usefulness of this favourite desk-companion. We shall ive a prize of a guinea to the writer of the best report hether it is critical or otherwise.

Summary.

THE suicide of a chemist at Walsall is reported on p. 637.

THE negotiations for the sale of the Sequah remedies are now practically complete (p. 619).

THE charge of indecent assault against Mr. Furmston, formerly of High Wycombe, has failed (p. 609).

KIDDERMINSTER chemists have brought upon themselves the satire of a local poet for declining to close early (p. 509).

OUR Paris correspondent gives some interesting particulars regarding the Institute of France, whose centenary is celebrated this week (p. 613).

IRISH assistants have been discussing some dispensing problems, but we cannot understand what conclusion they came to regarding liquor taraxaci (p. 612).

MR. FRANK R. STEPHENS reported to the Chemists' Assistants' Association his analyses of a large number of London river, pond, and bathing waters (p. 622).

A BRANCH of the Unregistered Practitioners' Association has been formed in Scotland. We report a public meeting in regard to the matter, held in Glasgow (p. 613).

MESSRS. WILSON, SALAMON & CO. have taken the first steps to maintain the validity of their patents for saccharin, Messrs. R. W. Greeff & Co. being the defendants (p. 625).

THOSE who have sent in reports on the analytical samples sent out in September have done badly. Three-fourths of them failed to detect the nitric radical, and only the first prizeman sent in a strictly correct report (p. 608).

CONSEQUENT upon recent proceedings under the Sale of Food and Drugs Act we give some hints to show how druggists should defend themselves when such things as sweet spirit of nitre are in dispute (p. 624).

A LONDON drug-clerk, who did business with a money-lender, was arrested in error in regard to his debt, although he had paid what was due. He sued for damages, but failed to get them, the Judge considering that there was no evidence of malice (p. 611).

AN AMBLESIDE grocer has been fined for selling Beecham's pills without a licence. The Excise authorities are also prosecuting a Northampton druggist for mutilating patent-medicine stamps. The defendant has been remanded on exceptionally heavy bail (p. 631).

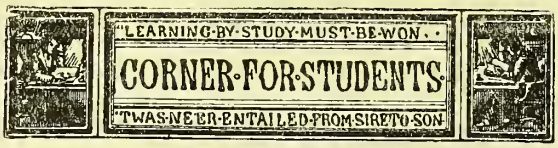
THE Brewers' Exhibition is open in the Agricultural Hall, Islington, this week. Our reporters indicate that the abstention of certain large firms has materially lowered the interest of the Exhibition, and on the whole there seems to be less novelty in it than usual (p. 615).

THE markets have been very quiet this week, few price alterations of importance being recorded in our Trade Report. Perhaps the two most interesting features on the drug-market are the slight decline in cream of tartar and the rise in Japanese oil of peppermint (p. 638).

MR. CAMPBELL SMITH, the sheriff-substitute at Dundee, has views of his own regarding poisons, and the Pharmaceutical Society have had a stiff fight to get him to fine a grocer's assistant for selling Powell's balsam. We report other Pharmacy Act prosecutions at Forfar and Nottingham (p. 630).

MR. BARRATT, the managing director of A. & F. Pears (Limited), made a cheerful speech to the shareholders in the company at the annual meeting. He showed that the dividend is above the average of industrial companies' dividends, and offered to pay a good fee to anyone who can improve Pears' soap (p. 619).

WE report the opening meeting of the New York Section of the Society of Chemical Industry, which was notable for the hearty reception given to the President of the Society. A paper on the purity of phenacetin sold in the United States was read, which showed that the abnormally high price charged by the patentees of the article tempts only a few druggists to sell substitutes (p. 614).



Conducted by Richard J. Moss, F.C.S., F.I.C.

Qualitative Analysis.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by *a stamped and addressed envelope*, not a stamp merely) will be received up to Wednesday, October 30, and the samples will be forwarded immediately.

Students' reports will be received up to Saturday, November 9. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts of which the mixture is composed.

Reports.

The subject of the last exercise was a mixture containing 90 per cent. of ammonia alum, 5 per cent. of manganese chloride, and 5 per cent. of cobalt nitrate. Its calculated composition was—

Co	1·01
Mn	1·39
Al	5·45
NH_4	3·57
SO_4	38·11
NO_3	2·13
Cl	1·79
H_2O	46·55
	100·00

It contained as impurities a slight trace of iron and a rather considerable trace of potassium.

Portions of the mixture of salts were sent to 58 applicants, and 31 reports of analysis were received. Only one student succeeded in correctly determining the composition of the mixture. The failures in the detection of the several constituents were—nitric acid, 25; manganese, 20; cobalt, 9; ammonium, 8; chlorine, 8; aluminium, 4. The sulphate was detected by all our correspondents.

The difficulties in this analysis arose from the small quantities in which most of the constituents were present. Each of these constituents present in small quantity exhibits reactions so characteristic that its identification was easy, provided the proper course was adopted. A small quantity of manganese is not easily detected by the purely wet method, and to effect a complete separation of manganese from some other metals, especially iron, is rather a tedious matter. For this reason it is very desirable to detect manganese, when present, in the preliminary examination. If the metal is ascertained to be absent the subsequent analysis in the wet way may be greatly simplified. Fortunately, there is a simple blowpipe-test for manganese of extreme sensitiveness and delicacy.

The detection of nitric acid presents greater difficulties to the beginner than almost any other chemical substance of common occurrence. When it is present in quantity, a rough test, such as the reduction of the nitrate to coloured gaseous products by metallic copper, generally suffices for its detection; but in dealing with small quantities this test is not trustworthy. The most useful reaction for its detection is that depending upon the reduction of nitric acid by ferrous sulphate, and the combination of the resulting nitric oxide with the excess of ferrous sulphate to form a dark-coloured compound that is easily recognised. This test, known as the ferrous-sulphate test, requires careful manipulation; it is scarcely possible for a student to apply it successfully without practice. The test is described in every handbook of analytical chemistry. In the present case the substance under examination needed no special preparation. About 1 c.c. of an aqueous solution was taken in a small test-tube, and a little freshly-powdered ferrous sulphate was added. When most of the ferrous sulphate had dissolved, a small pipette containing strong sulphuric acid was introduced into the test-tube, so that the end of the pipette rested on the bottom of the test-tube. Some of the acid, about ½ c.c., was now allowed to flow out slowly; the strong acid remained beneath the aqueous solution in virtue of its greater density. The pipette was now cautiously withdrawn, and it was observed that at the junction of the two liquids there was a reddish-brown cloud-like ring. This was the coloured compound of ferrous sulphate and nitric oxide above referred to. The test presents no difficulty of manipulation that cannot be overcome by practice. It is best to commence with a rather strong solution of potassium nitrate, and then to try weaker solutions until the limit of sensitiveness is reached. With care it will be found that a surprisingly small quantity of a nitrate may be detected by this means.

Prizes.

The First Prize for the best analysis has been awarded to John G. Morrell, care of Mr. H. Hylton Taylor, Cleveland Dispensary, Middlesborough.

The Second Prize has been awarded to Charles A. Critchley, 10 King William Street, Blackburn.

Marks Awarded for Analyses.

J. G. Morrell (1st prize)	100	Idalia	62
C. A. Critchley (2nd prize)	90	Cumbriana	58
Zirconium	88	Gemini	57
P. F. Novis	87	W. B.	55
A. B.	85	Bland	55
Henry A.	83	T. L. Hewitt	54
A. B. Payton	83	Quercus	52
·001	78	Hopeful	50
Demosthenes	77	H. S.	40
Conium Maculatum	75	E. A. W.	30
T. M.	72	C. J. Avery	30
M. A. G.	70	C. T. B. L.	25
Victory	70	R. T. S.	25
H. Bridges	68	Arum	20
Ammonium Isolator	65	Dewsburian	15
J. B. Fancourt	64		

To Correspondents.

Prizes.—**The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.**

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

Note.—**All communications should include the names and addresses of the writers.**

J. G. Morrell.—We congratulate you upon being the only student who made a really correct analysis of the mixture.

A. B.—The test depending upon the reducing-action of copper upon nitrates and the evolution of coloured gases is not one that can be relied upon for the detection of nitrates in small quantity.

Henry A.—You should have tested for manganese in the preliminary examination; part of the residue left on heating some of the powder in a dry tube or on platinum-foil should have been fused with sodium carbonate and nitrate.

A. B. Payton.—See remarks to "Henry A."

·001.—The mass you obtained on heating the powder with sodium carbonate and nitrate was green rather than blue; the colour was due to sodium manganate. Treated in this way a cobalt salt yields a magnetic oxide; it does not impart a blue colour to the mass.

Demosthenes.—If you failed to obtain a green mass on heating the powder with sodium carbonate and nitrate, it must have been because you did not heat the carbonate to fusion. If the quantity of powder used was not relatively very small, the colour of the mass was so dark as to look almost black.

Conium Maculatum.—The colour of the green mass you obtained was due to sodium manganate: a cobalt salt would not give a green mass. In solution the manganate is very unstable; it is readily reduced to a manganous salt.

T. M.—You ought to have made a more complete preliminary examination of the powder.

M. A. G.—Heating with an alkaline hydrate is a rough test for ammonium, unless great care is taken to prevent ammonia from escaping unobserved. You did not say what test you employed to recognise the ammonia.

Victory.—The quantities of ammonium and of nitric acid were small but their reactions are so characteristic and so sensitive you should not have failed to detect them.

Herbert Bridges.—The precipitate you attributed to zinc must have been due to manganese. It is probable that the alkali used to precipitate the cobalt was not added in excess. The production of a blue borax bead certainly proved the presence of cobalt, but it did not prove that manganese was absent from the precipitate examined. It is possible to detect cobalt by the borax-bead reaction in the presence of a large excess of manganese.

Ammonium Isolator.—See remarks to "Henry A." It is not improbable that you precipitated most of the manganese along with the aluminium hydrate.

J. B. Fancourt.—A solution of the powder acidulated with nitric acid gave a far larger precipitate with silver nitrate than a mere trace of chlorine would account for.

Adalia.—The precipitate you obtained with ammonium sulphide was too dark in colour to be due to manganese alone. It is strange that you failed to obtain a borax bead of a deep blue colour with the original powder. In heating the powder in a dry tube you must have noticed how the colour changed from pink to blue. This change could not have been due to manganese.

Cumbriana.—Silver sulphate forms a crystalline precipitate, and presents, by reflected light, a peculiar silky appearance. It cannot well be mistaken for the chloride, which appears either as a white opalescence or a curdy white precipitate.

Gemini.—The heating of an ammoniacal compound does not necessarily cause the liberation of ammonia. A fixed alkali should be present.

W. B.—The constituents you overlooked were present in small quantity it merely required more delicate manipulation and closer observation to detect them.

Bland.—See remarks to "W. B."

T. L. Hewitt.—More exhaustive work is necessary. The powder was pink in colour; the salts you say were present are all colourless.

Quercus.—See remarks to T. L. Hewitt.

Hopeful.—You describe results wholly different from those we observed in repeating your experiments. It is not conceivable that you could have added ammonium sulphide to a solution of the powder made alkaline with ammonia without obtaining a dark-coloured precipitate.

H. S.—The precipitate produced on adding calcium chloride to an acetic-acid solution of the powder was calcium sulphate, not oxalate.

E. A. W.—You should have noticed that on adding ammonium chloride and hydrate to the solution of the powder there was an almost colourless precipitate, insoluble in excess of ammonia; the presence of cobalt would not account for this reaction.

C. T. B. L.—It is probable that you did not use enough ammonium hydrate; as a group reagent it must always be employed in decided excess.

R. T. S.—The smell you thought due to sulphurous anhydride was caused by hydrochloric acid. A sulphite generally manifests its presence without the aid of heat.

Muraour Frères.—The public sale of this manufacturing perfumery business took place at Paris last Saturday. There was a large attendance, and bidding was keen. The first and most important lot, comprising the goodwill, the Paris premises, and works at Grasse, was rapidly run up from the upset price of 180,000f. to 260,000f., and was finally knocked down at 301,000f. (say, 12,000*l.*) to M. Musnier, avoué, 92 Boulevard Haussmann, acting, it was understood, on behalf of M. Péon.

English News

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

The Dartford Burroughs Memorial Fund.

Mr. F W Gibb, hon. sec. of the Dartford Burroughs Memorial Fund, has announced that sufficient has been subscribed to reduce the debt on the Cottage Hospital from 845*l.* to below 100*l.* A final appeal is to be made to completely liquidate the debt.

A Serious Charge Fails.

The charge of indecent assault preferred against Mr. Samuel Chambers Furmston, who was for many years in business at High Wycombe as a chemist and druggist, was thrown out by the grand jury at Hants Quarter Sessions.

The Kidderminster Chemists.

The chemists of Kidderminster cannot agree to fall into line with the other tradesmen of the town in closing on Wednesday afternoon, on which "Viator" thus metrically comments in the *Kidderminster Shuttle* of October 19. We print only a part of his verses:—

Passing through the streets one evening,
I observed with some surprise
That the Chemists' shops stood open;
Nor the fact did they disguise.

Though all other shops were bolted,
And few passers-by were seen,
Yet the Chemists' lights were burning;
Ah! I thought, what can this mean?

Oh, no doubt the work is healthy:
Drugs are meant to keep you so;
But they're things I am not *fond* of—
Why you are, I do not know.

Do you work so long for others
And the public taste to please,
Or is it because you find that
You can now *dispense* with ease?

Some do say you are too clever:
That you are such shining lights
That behind the coloured carboys
You would rather spend your nights.

I for one do not believe them;
Clever men you well may be.
Shining lights don't want a bushel;
Come and stand where men can see!

"Oh," you say, "the public need us,
And we cannot go away;
When a man has got the toothache,
He *must* have relief *to-day*!"

He will not wait till to-morrow.
"Pain like that is hard to bear";
So is hunger; but the baker
Is not so consumed with care.

Early Closing.

In common with the other tradesmen of the town, the chemists and druggists of Scarborough have been canvassed respecting the adoption of an early-closing scheme, whereby shops will be closed each Wednesday afternoon from the first Wednesday in November to the Wednesday preceding Whitsuntide. Ten have replied in favour of the concession, and six against, while one remained neutral.

Ung. Hydrarg. in the Isle of Wight.

Reporting to the quarterly meeting of the Isle of Wight County Council, Mr. Otto Hehner states that he had analysed eight samples of ointment of mercury. Of these seven fully

complied with the requirements of the British Pharmacopœia, one only having fallen much short in quantity of mercury that ought to be contained in the preparation.

Prepayment of Customs Duties.

Guernsey manufacturers of perfumery are rejoicing because the postal officials there are experimentally allowing, from November 1, the prepayment of Customs dues on articles sent by parcel-post, stamps being affixed to the declaration-form with an endorsement in ink, precaution having to be exercised to fully prepay the amount, as to which the postmaster neither gives information nor undertakes responsibility.

A Family Brought Up on Laudanum.

James Holberry, a collier, and Betsy Holberry, his mother, were prosecuted last week before the Recorder, at the Sheffield City Sessions, by the local Society for the Prevention of Cruelty to Children, on a charge of having cruelly neglected the child of the first-named prisoner and endangered its life. It was proved that in addition to starving the child until it was described as little better than a bag of bones, the female prisoner had systematically dosed it with laudanum, before it was 12 months old giving it as much as 10 drops a night. When remonstrated with she said that she had brought up eleven children all on laudanum, and they were all healthy enough, and that this child would have whined itself to death but for the laudanum. The medical evidence went to show that the child was being slowly poisoned by narcotics until it was taken charge of by the Society. Prisoners were both found guilty—Holberry sent to prison for twelve months and his mother for six months, both with hard labour.

Chemical Contracts for the L.C.C.

The London County Council has, on the recommendation of its main-drainage committee, accepted the tender of Messrs. Bevan & Co., of Swansea, for the supply of 5,250 tons of ferrous sulphate at 18*s.* 8½*d.* per ton, delivered alongside the jetties at Crossness and Beckton sewage outfalls. The tenders were five in number, and varied from 18*s.* 8½*d.* to 23*s.* per ton. The next lowest tender was only ½*d.* per ton in excess of that of Messrs. Bevan & Co. The stores committee have also recommended that Messrs. Colthurst & Harding be allowed to increase their price for zinc white from 16*s.* 6*d.* to 22*s.* per cwt. These contractors tendered for zinc white, and when deliveries of impure stuff were supplied they were rejected. They then claimed that the form of tender specified merely zinc white, without the addition of the word "genuine." They allege this as their reason for asking to be allowed to increase their price, and the committee take the same view.

A Grand Business.

Mr. Hy. W. Sharp, 25 Gray's Inn Road, is a manufacturer of a lotion for the hair and face. In the City of London Court on Tuesday, a Mr. Hooper applied for his committal for non-payment of a judgment debt of 11*l.* 14*s.* for advertising. Mr. Sharp's representative said he could not pay, though he was very desirous of doing so. Business had been very bad. For the plaintiff it was stated that the defendant advertised very largely. One of his advertisements was produced.

Mr. Commissioner Kerr read the advertisement and exclaimed: It is a grand business, that. It must be a good business. But you had better apply for the appointment of a receiver of his profits.

Mr. Dade (for the plaintiff): He trades as "Sharp & Co."

Mr. Commissioner Kerr: Well, you can take the emoluments of the business by having a receiver.

The representative of the defendant said he would pay 5*s.* per month. He could not do more.

Mr. Commissioner Kerr: I have nothing to do with that. You say he is not able to pay.

Mr. Dade: They have kept us at bay, and he has denied his identity.

Mr. Commissioner Kerr: Don't talk! Talking is the curse of the country in the present day. You will resort to other measures to get your money, you know. Apply for the appointment of a receiver. The case will be adjourned.

Carbolic-acid Poisonings.

Alice Baybut (67), "a heavy drinker," died on October 17 at Liverpool from the effects of drinking carbolic acid. A little before her death, asked what she had been doing, she said she did not know. A cup which had contained the poison was by her side.

At St. Bartholomew's Hospital an inquest was held on October 16 on Louisa Elizabeth Burton, a child of 2 years of age. The mother said they had been moving, and in packing she had placed a number of bottles containing medicine and other things in an old pail, and during her absence on the Sunday morning the deceased got hold of a bottle containing carbolic acid, and drank part of the contents.

Business Changes.

Mr. Geo. Le Scelleur, a native of Jersey, has obtained permission from the Royal Court of the sister island of Guernsey to practise there as a pharmaceutical chemist.

Mr. Wm. J. Morley has been similarly licensed by the Guernsey Court.

Fires.

A fire occurred on October 17 in Southwark Street, S.E., at the warehouse of Messrs. Daniel Judson & Co. (Limited). The fire broke out in a packing-room on the fifth floor owing to some sealing-wax boiling over. The fire was speedily extinguished, and the damage was very slight.

There was an outbreak of fire at 313 Lavender Hill, Battersea, Messrs. Parkes' drug-stores, on Monday, arising from some spirit of camphor coming in contact with a flame in the back part of the shop. The mischief was fortunately soon overcome.

A fire broke out on Monday afternoon at the works of Messrs. Ivan Levenstein & Co. (Limited), manufacturing chemists, Crumpsall Vale, Blackley. The building where it occurred was used for the manufacture of naphthaline. The fire blazed furiously for about an hour, and a quantity of valuable machinery was destroyed.

A Mineral-water Maker sent to Gaol.

Thomas Weaver, mineral-water manufacturer, of Reading, was indicted at the Reading Quarter Sessions on Friday last, with having between March 1, 1892, and July 31, 1895, feloniously stolen fifty bottles and ten cases, the property of Messrs. Tunbridge & Co., and bottles and cases the property of other manufacturers. After a trial lasting through Friday and Saturday, the prisoner was found guilty. In the course of the evidence, it was stated that the defendant had been in the habit of planing off the names of other manufacturers and putting his own name on mineral-water cases, and he had smashed bottles belonging to other makers and used the indiarubber rings in his own bottles. The prisoner was sentenced to six months' imprisonment with hard labour.

Pills for a Testimonial.

At the Ashford County Court last week, John Duplock, pill-manufacturer, Churchyard, Ashford, sued a Mr. Austen for articles detained, and for the value of a box of pills. Defendant produced all the articles in question and a dispute arose respecting a box of pills supplied to a postman named Harding, which defendant said plaintiff sent by him in order to cure Harding and get a testimonial. His Honour gave judgment for defendant as the goods had been restored and he was not liable for the pills.

Chemists at Football.

The Pharmaceutical Football Club played a match last Saturday at Shepherd's Bush against the King's College Club. The former were victorious by seven goals to two.

A football-match was played on Saturday last at Clapham, between the Welsh and English students of the South London School of Pharmacy. The Celtic detachment started the ball, and during the first half the game was very closely contested, so that half-time came with no score. When the attack was renewed, the superiority of the Welshmen was at last manifested. Their defence was fine, and their attack was better than that of their opponents; with a good run up and a clever score, Wales drew first blood. The Englishmen fought hard, and were once near scoring; but

the game ended with a score of one goal to none in favour of the Welshmen.

Drug-clerk and Money-lender.

In the Lord Mayor's Court on Wednesday, before the Assistant Judge (Mr. Roxburgh) and a common jury, Charles Clark, a drug-clerk, in the employment of a wholesale drug-house in the City, sued Mr. Rupert Kenneth, a money-lender, carrying on business under the style of Kenneth & Co., to recover damages for false imprisonment and malicious prosecution. The declaration set out that the defendant wrongfully gave the plaintiff into the custody of the Serjeant-at-Mace of the Mayor's Court, for not having complied with an order of the Court for the payment of certain money, whereby plaintiff was put to inconvenience and injured in his credit and reputation. Mr. Lewis Glyn was counsel for the plaintiff, and Mr. Stephen Lynch for the defendant. The plaintiff had borrowed a small sum of money from the defendant, who obtained judgment against him. Under that judgment he, on March 7, obtained an order from this court for plaintiff's committal to prison unless he paid an instalment of 8*s.* within a month. On April 8 the money was paid to Mr. Kenneth's solicitors, and plaintiff obtained a receipt. An affidavit was afterwards made by a solicitor's clerk—presumably through a mistake—that the money had not been paid, and thereupon the plaintiff was arrested at his place of employment by an officer of the court. He was taken to the offices of the court, and it was not until he paid 13*s.* 10*d.*, under protest, that he was able to obtain his release. Plaintiff admitted in cross-examination that he had had dealings with other money-lenders and that he did not pay the defendant until he was compelled, owing to the trouble and inconvenience to which he had been put and the high rate of interest charged. At the close of plaintiff's case Mr. Lynch submitted that there was no evidence of malice. After argument the learned Judge concurred, and the plaintiff was nonsuited.

Stealing a Dentist's Case.

Charles Cialis, aged 18, described as a labourer, was indicted at the County of London Sessions, Clerkenwell, for receiving a case of false teeth, well knowing the same to have been stolen. The prosecutor, a dentist carrying on business in Edgware Road, stated that on September 28 last a case containing artificial sets of teeth was placed inside the doorway of his premises, and the same evening it was stolen, and only the empty case had been recovered. The prisoner was on Tuesday last sent to gaol for twelve months' with hard labour.

Prescribing by Chemists.

An inquest was held on Monday, at Bath, on the body of Caroline Skinner, aged 75, who died suddenly on October 21. Deceased was a widow lady who for some days had been poorly in her health. A Miss Arthur obtained some physic for her from Mr. Alcock, chemist, Walcot Buildings, Bath. The chemist told her that if the medicine did her no good she was to go for Dr. Ellis. Henry Alcock stated that he supplied a bismuth-mixture for the deceased, who, he was told, was suffering from indigestion, and from the symptoms Miss Arthur gave witness thought that such was the case. He thought Miss Arthur called for another bottle on the previous Friday, for the purpose of removing constipation. He told Miss Arthur that there was probably some inflammation, and that she had better send for a doctor. He was sure he told her that a doctor ought to be called to see deceased that night, and he thought that Miss Arthur replied that if deceased pulled through that night she would send for the dispensary doctor in the morning. The Coroner remarked that he was under the impression that witness was not allowed to prescribe, but witness said he could prescribe, but not visit patients. The Coroner: But you have prescribed without seeing her. Witness: The symptoms were related to me by Miss Arthur. The Coroner said witness might have prescribed for deceased out of kindness, but it was not right to prescribe for a patient without seeing her. Witness: I should have been at liberty to let the customer have any kind of patent medicine for the patient. The Coroner: I am aware of that; but there would be no responsibility on the chemist if a patent medicine had been asked for. Dr. Ellis stated that deceased had died from syncope arising from colic. The mixture that had been given to her did her no harm. He did not think for one moment it had accelerated death. A Juryman: Is it not the practice for chemists to prescribe for their customers? The Coroner: The question is not what the practice is, but what the law is. The Coroner further stated that he thought Mr. Alcock had given his evidence very fairly. There was no suggestion that the mixture supplied by him did the deceased any harm; but whether it was a proper remedy it was impossible for him to say—in fact, it was almost impossible for anyone to say. This case represented one of the dangers of chemists prescribing for people they have never seen, and so far as he understood such a practice was not allowed by law. Of course, if it were done out of a spirit of kindness and on an emergency it would be useful; but, at the same time, it was a risk for one to run who was not properly qualified. Eventually, the jury returned a verdict of death from natural causes, and they added that they did not think the chemist was to blame.

Irish News

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

The Proposed Erasure from the Register.

The Judicial Committee of the Privy Council of Ireland will sit on Saturday, November 2, in the Council Chamber, Dublin Castle, to consider the application of the Council of the Pharmaceutical Society for an order authorising the erasure of the name of R. C. Marshall, Dungannon, from the Register of Chemists and Druggists, for a second offence against the Pharmacy Act in having compounded a medical prescription. Memorials against the application have been received by the Lord Lieutenant from Mr. Marshall, the Magistrates, the Town Commissioners, and from several influential inhabitants of Dungannon.

Personal.

Mr. G. D. Beggs, Vice-President of the Pharmaceutical Society of Ireland, and Mr. R. R. Clay, solicitor to the Society, have been elected Town Commissioners of Dalkey, co. Dublin, and the latter gentleman has also been elected Chairman of the Board.

At Dublin, on Tuesday evening last, Mr. H. T. Turner, L.P.S.I., manager of Wells's Medical Hall, Upper Sackville Street, was presented by a number of friends with a beautifully-illuminated address on the occasion of his marriage. The presentation was followed by a supper.

Ulster Pharmaceutical Association.

A social meeting in connection with this Association was held in the Foresters' Hall, Royal Avenue, on October 17. Mr. William Prott, M.P.S.I. & G.B., President of the Association, was in the chair, and the members present numbered between twenty and thirty. The chairman, in an opening address, gave in detail the objects which the promoters had in view, and dwelt on its educational aspect. The institution of such a Society for Belfast and the North of Ireland had been, he said, a long-cherished desire of his, and although two former associations had not been long in existence, they had done much good work in their time. The first had contributed to most important improvements in pharmaceutical legislation. This one was numerically stronger than its predecessors, and he hoped it would be productive of much good. He warmly advocated social intercourse, and said that in the coming session many subjects would engage their attention, including the inevitable one—"Some criticism of the processes of the B.P." On the motion of Mr. R. W. McKnight, seconded by Mr. D. W. Elliott, the following gentlemen were elected as Vice-Presidents of the Association:—Drs. White, McKenney, Tweedle, and Fielden, and

Messrs. J. W. Nicholl, J. Montgomery, P. J. Lyons, and A. McNaught. After some routine business, tea and coffee were served, and this was followed by a musical programme, arranged by Messrs. S. M. Martin and R. S. Moore. Herr Louis Werner, conductor Belfast Operatic Society, presided at the piano. At the next meeting a paper on "Pharmaceutical Organisation" will be read.

Business Changes.

Mr. Harris, L.P.S.I., late of Messrs. Lester & Co., pharmaceutical chemists, Cork, has succeeded Mr. J. Corrigan, L.P.S.I., in Messrs. Conyngham's pharmacy, Baggot Street, Dublin.

Bower's Medical Hall, Great Brunswick Street, Dublin, is now under the management of Mr. John Beatty, L.P.S.I., he having been appointed by the executrix in the room of Mr. W. R. Beck, L.P.S.I., of Denbigh, North Wales, who has gone to Edinburgh to complete his medical course.

Fannin & Co., who were lately fined at the instance of the Pharmaceutical Society for selling poisons, have formed their business into a limited liability company. As they have employed a pharmaceutical chemist—Mr. S. J. Smith, M.P.S.I.—as an assistant, it may probably be inferred that they will not confine themselves to the sale of poisons, but will compound medical prescriptions as well.

A Coming Lady-pharmacist.

Miss Bell, daughter of Mr. Henry Bell, chemist, Quay, Waterford, obtained first place at the recent Preliminary examination of the Pharmaceutical Society, and her brother fifth place.

The Unlucky Number.

The Local Government Board regards as excessive the proposal of the South Dublin Poor-law Guardians to give their compounder thirteen apartments for his exclusive use. Modified plans are being prepared.

Pharmaceutical Chemists' and Apothecaries' Assistants' Association of Ireland.

At the weekly meeting of this Association on October 18, a paper, entitled "How Came She There?" was read by Mr. Payne, on behalf of an anonymous contributor. The paper referred to the young lady who lately succeeded in distancing all competitors at the Preliminary examination of the Pharmaceutical Society. The writer came to the conclusion that the lady's success was most likely due to more careful preparation. The paper received a good deal of hostile criticism, being described as wishy-washy, and abounding in cheap philosophy. The next paper was named "A Few Remarks on the Pharmaceutical Examination, and its Importance to the Pharmacist." The writer said they had seen in THE CHEMIST AND DRUGGIST the experiences of the successful and the unsuccessful candidate. Criticism on pharmaceutical examinations helped all parties. The stringency of the Society's examinations had considerably increased during the last few years, but proportionate facilities had not been given to the student to enable him to acquire additional knowledge, and this accounted for the large number of candidates rejected at recent examinations for the licence. The present system of examining was excellent, so far as it went, but a lack of enthusiasm seemed to pervade teachers and pupils alike. The importance of lectures seemed to be overlooked in favour of the mere money-getting by the Society, and the "putting in" of so many hours by the student. Pharmacists nowadays had to keep abreast of the times. Instead of the old-fashioned pill, powder, and nauseous mixture, dainty tabloids, cachets, and other new methods of compounding were generally recognised. They required practice and theory if they desired to become "elegant pharmacists." In the discussion which ensued, Mr. Hardy said the Irish curriculum and examination were superior to those of England; they probed deeper into the candidates' qualifications. The following questions were also discussed:—(1) What should be dispensed when liquor taraxaci is ordered in a prescription? (2) Is it advisable and correct to add a small proportion of white wax to zinc ointment, or any other official ointment of soft consistency during warm weather? (3) In the preparation of seidlitz-powders, should the powders be accurately weighed, or might the usual method of measuring the ingredients by means of a mould be considered correct enough? Mr. Watson said THE CHEMIST AND DRUGGIST had some time ago ventilated Question 1, and the general opinion of those who contributed to the discussion was for the old liquor. Mr. Payne said the preparation referred to was a very old and infrequently used formula. Doctors, when writing out their prescriptions, relied to a great extent on the discretion and experience of the dispenser. Squire and Martindale were held up as superior to the official standard by all save the Chairman, who warmly defended the B.P., whose formulæ he advised all present to abide by. The opinion of the majority was that the preparation in question when ordered in a prescription should be dispensed. Question 2 was answered unanimously in the negative. Question 3 evoked considerable discussion, and the ethics of seidlitz-powders were debated at great length. The Chairman and one or two others thought the powders should invariably be weighed and not measured, the latter being inaccurate; but, on a vote being taken, the majority were in favour of the use of a mould. A smoking concert is to be held on Friday evening, November 8, in the Bijou Theatre, South Ann Street. A sub-committee were appointed to prepare a programme and to carry out the arrangements.

Amateur Cancer-treatment.

At a coroner's inquest held on Friday in the townland of Emy, near Emyvale, some strange facts were brought to light concerning the treatment of cancer. One McQuaide, a farmer, had a pain in the vicinity of his knee, which soon developed into a sore. After trying several ineffectual remedies he spoke to another farmer, McKenna, who bandaged his leg with a plaster, telling him to keep it on till it dropped off; but after keeping the plaster on for a fortnight, the pain became so excessive that a doctor was called in. His services, however, were of little avail, and death ensued. A *post mortem* was made, and death was declared to be due to pneumonia accelerated by the exhausted condition of the man due to the plaster. The jury found a verdict accordingly, and McKenna is to be tried for causing the death of McQuaide.

Scotch News

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

The Claim Modified.

An action in the Court of Session has been settled in which the Assets Company (Limited), York Place, Edinburgh, sued the trustees of the late Robert Falla, of Hassendean Common, near Hawick, and John Falla Smith, sometime chemist at Earlston and now at 31 Danson Road, Surrey Gardens, London, and others, the beneficiaries on Robert Falla's estate, for payment of 19,297*l.* 14*s* 8*d*. Robert Falla was the holder of 300*l.* of City of Glasgow Bank stock in his own name, and of 250*l.* as trustee for Dr. Archibald Wilson, of her Majesty's Indian Army. He thus became liable for payment of 15,125*l.* in calls, and the liquidators of the bank discharged the claim in respect of payment of 4,015*l.* 12*s* 1*d*. The Assets Company, who purchased the City of Glasgow Bank assets, raised this action on the ground, as they alleged, that Robert Falla concealed from the liquidators that he was in possession of funds beyond what he disclosed to the amount of 6,862*l*, and they therefore sought full payment of the calls with legal interest. The defendants relied upon the report of the accountant at the time of the discharge as to Robert Falla's *bona fides*, and stated that the estate had been distributed. An offer was made to hand over the contents of an insurance policy, less the premiums paid since the date of Robert Falla's declaration—141*l.* 17*s.* 10*d*. Lord Kyllachy has given decree in terms of this offer.

The Unregistered Dental Practitioners' Association.

A public meeting of dentists was held in Glasgow last week under the auspices of the Unregistered Dental Practitioners' Association of Great Britain, for the purpose of establishing an affiliated centre for Scotland. There was a good attendance, principally of assistants to both registered and unregistered dentists in the city. Mr. Fred Butterfield, of Oldham, with Mr. J. R. Taylor, of Bacup, comprised a deputation from England, and Mr. Butterfield presided.

The Chairman stated that the Association was formed to enable *bonâ fide* practitioners and men capable of doing their work to practise their profession independently of the British Dental Association and without fear of prosecution. Unregistered practitioners throughout the kingdom had been subjected to ignominy by the British Dental Association. He contended that some of the registered men of the Dental Association and the L.D.S. were quite ignorant of the mechanical portion of their profession. This association was founded in September, 1894, with a membership of 17, and had now 120 names on the roll. The balance at present to their credit amounted to 194*l.* 12*s.* 6*d.* He was quite willing to work in unison with the British Dental Association, regarding the Bill presently being formed. His association was of opinion that a clause like the following should be inserted:—"All *bonâ-fide* practitioners would be able to practise without fear of the law."

Mr. J. R. Taylor, the treasurer, spoke briefly of the position, enemies, and means of defence. In Lancashire, he said, the unregistered men would be treated as outcasts by the B.D.A. were they not able to stand their own ground. The B.D.A. had successfully carried on prosecutions against unregistered men for using words appertaining to the word "dentist." Mr. McDonald, of Manchester, had been recently prosecuted for using the word "dentorium," and lost the case, having to pay a penalty and costs amounting to nearly 200*l.* He cautioned his hearers to be extremely careful in their methods of advertising, and to abstain from using words such as "dental," "dental surgery," "dentorium," and others that would bring them within the scope of the Act of 1878. Anyone becoming a member of the Defence Association and advertising in words sanctioned by the Defence Association Council would be upheld by that Association in any prosecution that might arise. This Association, though in its infancy, had been the means of compelling the sub committee of the British Medical Council to delete one clause from the proposed Bill. This clause was "that no one except members of the B.D.A. or L.D.S. should be allowed to practise dentistry for gain." He alluded also to the non-success of the B.D.A. in attempting to have unregistered practitioners prohibited from using nitrous oxide or anæsthetics.

The Chairman in further remarks, read an extract from THE CHEMIST AND DRUGGIST of April 5 last, showing that the number of registered dentists was decreasing at the rate of 83 per year.

In reply to questions, he stated that anyone practising dentistry exclusively as a means of livelihood or in combination with the drug trade was qualified to become a member, but great care was taken in inquiring as to the qualifications of any such candidate. They had considered whether a registered man could become a member of the Association. They would have to receive very definite proofs that such an applicant was really a friend to the Association before he could be admitted. Assistants to registered men could become members.

A fair number of assistants joined the Scottish Branch then formed, and at an informal meeting afterwards held, Mr. Alexander D. Reid, of Dundee, with residence at National Bank Buildings, Perth, was appointed secretary.

French News.

(From our Paris Correspondent.)

THE USE OF STERILISED MILK.—At a meeting of the Paris Municipal Council on October 18, M. Paul Strauss drew attention to the use of sterilised milk as nourishment for new-born infants. He asked the Council to take measures in order that the children of poor parents may benefit by this excellent form of nourishment. He suggested that sterilised milk should be supplied to the various dispensaries, crèches, &c. The proposal was referred to a committee.

THE DUTY ON ALCOHOL.—The *Journal de Droguerie* publishes a report addressed by M. Adrian (head of the Syndical Chamber of Chemical Manufacturers) to the Chamber of Commerce, pointing out that the Excise duty on alcohol heavily handicaps the manufacturers of such chemicals as are necessarily prepared with this spirit. "It is true," he remarks, "that the alcoholic products produced abroad are heavily taxed by the French Customs in order to protect the native manufacturers. But, on the other hand, in buying abroad one knows exactly the price of the article and the cost of the Customs duty. If one manufactures in France, there is 37.50f. to pay per hectolitre on the alcohol employed. The gauger's estimate may or may not be correct, but is only disputed with difficulty and danger of fines, &c. Theoretically, the preparation of 100 kilos of strychnine requires 500 litres of alcohol, but," says M. Adrian, "in these cases we know what a distance separates theory from practice." There was a scheme mooted of a great factory that was to supply the home demand (for alcoholically prepared chemicals) for all France; but it fell through, doubtless owing to the "holy terror of the Excise and the instability of the alcohol duties." A large factory to supply home consumers and exporters alike, with a drawback, of course, for the latter, seems to M. Adrian what is required to meet the necessities of the situation.

THE CENTENARY OF THE INSTITUTE.—The fêtes of the centenary of the French Institute commenced in Paris this week, and were inaugurated by a special mass at the church of St.-Germain-des-Prés, Paris, presided by Monseigneur Perraud, Bishop of Antin, in memory of deceased members of the famous society. The world-renowned Institute, as is well known, now comprises five distinct academies—viz., the "French," "Sciences," "Inscriptions and *Belles Lettres*," "Fine Arts," and "Moral and Political Sciences." The Institute was organised a hundred years ago, especially as regards the Academy of Sciences, which has always been of leading importance. The literary and learned societies of France previously in existence were dispersed by a short decree of the Convention declaring simply that "all academies and societies supported by the nation are suppressed." It was at the same time decided that "the Botanical and other Gardens, as well as the museums, libraries, &c, shall be placed under the superintendence of the Government authorities, until such time as their management shall be arranged for when the question of public instruction is settled." Efforts were made by Lavoisier and Lakanal to preserve the Academy of Sciences from this fate, but in vain, for when the members went to attend a meeting on August 17, 1793, they found seals on the doors. Two years later, Brumaire 3, Year IV. (October 25, 1795), the National Convention passed a law on the "Organisation of Public Instruction." Sections IV. and V. of this Bill related to the creation of a "National Institute," as well as its working and functions. The original Institute was divided into three sections. They comprised "Physical and Mathematical Sciences," with sixty members in Paris, and an equal number of associates in the provinces; "Moral and Political Sciences," thirty members in Paris and thirty-six associate-members; "Literature and Fine Arts," forty-eight members of each kind. The Directory immediately nominated forty-eight members for the three sections, leaving the Institute to complete the number when once organised. On Frimaire 15, Year IV. (December 6, 1795), the first meeting was held. Later, when Napoleon Bonaparte was a member, he introduced various changes, and later Louis XVIII. undid part of the work of the Convention by re-establishing the old academies. Each academy works independently of the other, though the President of the Institute is elected each year in turn from the members of one of the academies. This honour at the present time rests with M. Ambrose Thomas, the well-known musician and member of the Fine Arts Academy.

THE FIRST AMERICAN MEDICAL SCHOOL FOR WOMEN was opened at Boston by Mr. Samuel Gregory in 1848.

Society of Chemical Industry.

New York Section.

The openiug meetiug of the session was held at the New York College of Pharmacy on October 7, and was of special interest, owiug to the visit of the President of the Society, Mr. Thomas Tyrer, of London. The Foreign Secretary, Mr. Ludwig Mond, was unfortunately unable to be preseut, but the Section hopes to welcome him at the next meeting. There was an unusnally large audience assembled, inclndiug a numerous contingent of the college students. After the formal business the Chairman of the Section, Mr. A. H. Mason, whose excellent work duriug the last session had secured for him a second year's occupation of the chair, delivered a short

Inaugural Address,

preceding it by a welcome, in the name of the members, to the President, and to Professors Austin and Hart, Presidents respectively of the New York and Lehigh Sections of the American Chemical Society. The Chairman briefly reviewed the work of the last session, and called special attention to the report of the General Secretary, in which the work of the Section was commended. He also called attention to the report of the Section issued previonsly, and containing in addition a list of all the members residing in the States. This, he said, was a unique piece of work on their part, wonld briug the members closer together, and had been very favourably looked upon at headquarters. Incidentally he remarked that it had also tanght their transatlantic friends somethiug of the art of printing. The Chairman then went on to amplify the remarks made in his last year's address, and suggested that the compilation of a record of the chemical manufactures of the United States would prove of great value, and he was willing to take charge of the work if members and manufacturers would supply information. At the close of the address Mr. Mason introduced Mr. Tyrer to the members, and vacated the chair in his favour.

A warm welcome

was extended to Mr. Tyrer, the President, who, during the club dinner previous to the meeting, had already won the hearts of most of the members. His visit might be summed up in the famous words, "Veni, vidi, vici." He said that he had been asked that afternoon about his address, and remarked that he had three—one in England, one at one of their magnificent hotels, and one at the hospitable home of their chairman—but that other address he had none, seeing that the previous forty-eight hours had been spent on a belated steamship (the s.s. *Paris* arrived in New York two days late), with no knowledge of when they would arrive, and with the expectation of not being in time for the meeting. Preparing an address, therefore, was beyond him. The members, however, had no reason to regret this, for during the next half hour and more Mr. Tyrer held the close attention of his audience. His quiet humour kept the members in high spirits during the final half of his address, in which he gave his first impressions of America. He then went on to regret Mr. Mond's absence, and paid an eloquent tribute to his genius, geniality of disposition, and generosity. A brief account of the foundation of the Davy-Faraday research laboratory called forth unstinted applause. The President then proceeded to comment on the chairman's address, complimented the members on the work already done, and drew their attention to the forthcoming publication of the general index to the Society's *Journal*. He said, in conclusion, that so far he had not been disappointed with his visit, and at present had no desire to go back, but inasmnch as he had to visit his home once again at least, he extended an invitation to the members to come to the London meeting. He was sure they would not be disappointed.

The local secretary, Dr. N. Schweitzer, then read a paper on

Adulteration and Substitution of Drugs.

In expectation of an interesting paper a large number of pharmacists had assembled, but their subseqnent disappointment was great. The paper was practically a denunciation of the whole retail drug trade, not for their iuiqnity in adulterating in general, but for their especial iniquity in substitutiug in the case of a proprietary "synthetic," or, as Americans term them, an "ethical proprietary." The drug in qnestion was phenacetin, which is the subject of a patent in the United States, and the patentee obligingly disposes of it to retailers for $1 per oz., nearly four times the price at which it can be bonght in Canada. Consequently smnggliug, snbstitution, and adulteration are said to be rampant. There were some points of interest about the paper. Dr. Schweitzer had examined 2,828 samples purchased from retailers, of which 180 were sophisticated. These samples came from all parts of the country, and a list of towns, with the number of substituting druggists found in each, was read. The statement that Newark, in New Jersey, contained no substituting druggists was greeted with loud cheers by the college contiugent. As to the composition of the substituted article. it appeared that 105 samples consisted of acetanilide, 21 samples were acetanilide mixed with sugar, 12 samples of acetanilide with sodium bicarbonate, 1 sample of acetanilide and bismuth subnitrate, 35 samples of mixtures of acetanilide and phenacetin, 1 of phenacetin and borax, 2 of phenacetin and sugar, 2 of phenacetin, acetanilide, and sugar, 1 of quinine sulphate, and 1 of antipyrin. Methods of detecting and separating adulterants were given, and the interesting fact recorded that admixtures of phenacetin and acetanilide could be at once detected by taking the melting-point of the sample. Mixtures of phenacetin and acetanilide in any proportion begin to melt at 92° C., and form a clear fluid up to 130° C. This test alone is sufficient to establish the presence of acetanilide. Dr. Schweitzer then went on to denounce this "crime against life and health." The audience began to look bored; the President looked thoughtful; while the members looked at one another and, in the language of a well-known writer, "closed their sinister optic." Even the pathetic picture of a consultation of "eminent physicians" at the bedside of a "typhoid" patient, arriving at a decision to prescribe phenacetin for which the sinful druggist snbsequently substituted acetanilide, resulting in the death of the patient, only served to draw smiles from the ribald audience and whispered remarks that they had heard something like that before. As the doctor proceeded to the consideration of the laws on the subject, and invoked dire vengeance on the heads of the hapless druggists, a prominent pharmacist was heard to murmur, "Rats!" It appeared that the laws demanded by the doctor for the punishment of the substituting druggist were opposed to the constitutional law of the United States; but in a burst of virtuous indignation Dr. Schweitzer demanded an amendment to the Constitution on the grouud that "the preservation of human life was of more importance than keeping inviolate the U.S. Constitution."

At the close, Dr. Coblentz, of the New York College of Pharmacy, rose and vigorously combated the attack of Dr. Schweitzer on the retail druggist, pointing out that usually the blame lay at the doors of unscrupulous manufacturers rather than at the door of the retail druggist. The Professor's remarks were greeted with loud applanse.

Mr. Tyrer then rose, and with his accustomed tact and courage pointed out the inadvisability of papers such as this being read at their meetings. There was much of value in the paper, and that part would be published in the *Journal*, but such matters as were of private interest only would not find place there. He understood from Dr. Schweitzer that he had not intended the paper for publication in the *Journal*, but what was of value should certainly be published.

Programme for the Session.

The following papers have been promised:—

T. Lynton Briggs: "Note on the Manufacture of Phenylamidoazobenzine and some Derivatives."

John Encquist: "Utilisation of Waste Acid from Gold and Silver Refining."

J. D. Hawkins: "On the Chlorination of the Gold Ores of the Cripple Creek District."

E. H. Gane: "The Determination of Caffeine in Tea."

Emil E. Lungwitz: "The Correct Iodine Number of Oils and Fats."

Samuel Peacock: "American Phosphates in 1895."

F. T. Walsh: "Brown Stains after Steaming in Cotton Goods."

A. W. Warwick; "Laboratory Tests on Gold Ores."

Jno. H. Yooum: "Extraction of Tannin from Raw Materials."

BREWERS' EXHIBITION.

WHEN the Agricultural Hall in Islington opened its doors on Monday morning to the seventeenth annual "Exhibition and Market of Machinery, Appliances, and Produce Used by Brewers, Maltsters, Distillers, Wine Merchants, Licensed Victuallers, Caterers and Hotel Proprietors, and in the Manufacture of Aërated Waters, Syrups, Cordials, Cider, Perry, Liqueurs, Cigars, Tobaccos, Pipes" (which is the correct official title), there were still some of the largest exhibits in the course of arrangement, but by Wednesday, when business really begins, everything was ripe for customers.

It would be useless to disguise the fact that the secession of the leading makers of aërated-water machinery has changed the aspect of the show very much, and although their places have been filled by other exhibitors, the scanty display of machinery in motion creates a strangely forlorn aspect. The daily papers have freely reported that the Exhibition is more representative of the aërated-water trade as a whole. We cannot endorse that view, for beverages are not a bit better represented, while the absence of such firms as Messrs. Barnett & Foster, Bratby & Hinchliffe, Dan Rylands (Limited), and others with their magnificent displays of soda-water machinery leaves a blank which has not been filled. The show is now more a mart than an Exhibition, and it is but fair to the promoters to say that this is what they want it to be. The most prominent exhibitors also regard it in that way now, so that their exhibits are practically the same year after year, but they concentrate in the hall the whole of their available travelling staff. For example, this year one Liverpool firm is represented by two principals and six travellers, all of whom will renew acquaintances and book orders. So it is with others. With that fact before them our subscribers will understand that our report does not pretend to deal with everything in the Exhibition.

Another direction in which the Exhibition has fallen back is apparent in the galleries, where the number of people selling such things as silk handkerchiefs, pocket-knives, pen-and-pencil cases, glove-cleaners, and all of that ilk, has increased greatly. This is entirely detrimental to the proper business of the Exhibition. There seem to be more check-till and type-writer exhibits than ever, but not, as far as we could judge, any novelty amongst those in the galleries. In short, the tone of the Exhibition as a whole is decidedly lower this year, and several of the exhibitors have spontaneously informed our reporters that they were disappointed with the results. The *Daily Chronicle* reports that "the attendance on Monday was a record for the opening day of the show, and the total number of visitors for the week promises to surpass that of previous years. This will not surprise those who have already patronised the Exhibition, and seen for themselves the comprehensive nature of the wares, which cover every branch of the many trades catered for at this annual and popular undertaking." We give this for what it is worth, and that is little. On Tuesday evening the attendance was miserable, like the weather.

Essences and Essential Oils.

Manufacturers of soluble essences are wonderfully undemonstrative this year; indeed, we do not recall an exhibition at which so few new things have been shown, and the fact straightforwardly confessed by the exhibitors, with one exception, in which an article which we noticed in 1894 was introduced to us as being "quite new—that is, nine months old." The day was dull, and we charitably suppose that that was the cause of the slip. Several of the principals talked more about oil of lemon than anything else. The prospective high price of that article and the citral valuation are the topics of discussion. Before next exhibition we shall have seen the worst in regard to the former; but it is doubtful if we shall have heard the last of citral valuation before the end of the century. This is not the place to discuss the matter, even briefly; but the fact that there is more than one opinion regarding the fairness of the citral valuation must be mentioned.

The large and handsome stand of W. J. Bush & Co., of Artillery Lane, E C, is the same as described by us on various occasions. It is plentifully stocked with the well-known products of the firm, and when asking if any novelties were exhibited, our representative was informed that the firm's price-list mentioned "moss-rose," "strawberry," and "carnation" essences as such. Probably one of the principals would have given our reporter more specific information.

Stevenson & Howell occupy their usual position in the centre of the Great Hall. "I think we are among the oldest exhibitors here," said Mr. Howell, who was in charge of the handsome stand, assisted by several travellers. "We have been here for about twelve years now, and we have generally shown some novelties in essences or drinks on every occasion. This year we have our new 'ginger-stout' and 'winter cheer.'" Both beverages were sampled by our representative, whose own preference is for the bright ruby effervescing "winter cheer." Ginger is one of the chief constituents of both drinks, a fact which led Mr. Howell to deplore the scarcity and expensiveness of fine Jamaica ginger, which is at present quite 60 per cent. above the normal price. Specimens of the firm's principal products—acids, caramels, concentrated essences, and so forth—are ranged along the walls of the centre room of the exhibit.

At Mr. C. W. Field's (Liverpool) impressive booth our attention was called to a fine "heading" for beverages, 15 minims of it in 2 pints of water giving a froth equal in depth to the column of water, and it did not seem to diminish during the half-hour our representative was talking with Mr. Field. There are many other good things shown in this stand, ginger especially being a strong feature, and cherry-lemonade an excellent drink.

Clayton & Jowett (Liverpool) have secured this year, in addition to their old position, a corner at the entrance vacated by Barnett & Foster, but the latter was not fixed up until Wednesday, the position having been acquired on Monday only. This shows that the vacancies on the ground-floor have not been so eagerly snapped up as we were led to suppose. Clayton & Jowett appear to be pushing ahead quickly, and they report that their "Zolakone" Essence has caught on in India and the Colonies. It is the soluble essence-trade which they cultivate, but there is nothing new in that department to note, and the exhibit is exactly the same as last year, apart from the addition referred to.

Duckworth & Co., of Manchester, still keep their "Bassara" to the front, for it has "turned up trumps." This preparation is an advance upon herb-beer extract, as its aim and object are to produce a fermented but non-excisable beer of the flavour and colour of Burton ale. This it does with remarkable exactitude, colour, flavour, and head being strikingly like "Bass" This is obtained simply by dissolving a tinful of the Bassara ale extract and 17 lbs. of sugar in 100 gallons of hot water, and when the solution cools to 70° F. adding 4 ozs. of German yeast. The firm exhibit also an apparatus for brewing "Bassara" which consists of two galvanised tanks, wood vats being prejudicial to the beer.

A. Boake, Roberts & Co., of Stratford, are amongst the protesting firms, so far as brewers' chemicals, &c, are concerned, but they retain their old position with materials for the aërated-water trade. The only article shown to us

which we have not previously noted was septo-e, a scale preparation for giving to herb stout that peculiar flavour which is associated with the real thing. The firm have just obtained a gold medal for their exhibit at Bordeaux.

The only exhibit of this class in the gallery is that of Martin Perls & Co., of Basinghall Street, E C., who exhibit samples of essential oils, fruit essences, soluble essences, and various chemicals. Perhaps the most notable thing shown here is the "four-times concentrated" soluble essence of lemon, which is a product of rare bouquet and great strength, 3 dr. of it sufficing to give a true fresh-lemon odour to a gallon of syrup. "Sponatalin" is a new heading preparation which this firm are introducing. This is "made in Germany," and the fact is rather glorified by the firm because they say it is manufactured under the rigorous supervision of the German Health Department, therefore it is absolutely free from "poison." We have no evidence that English-prepared "heading essences" contain poison, nor did our informant vouchsafe any.

Beverages.

Idris & Co. (Limited), of Camden Town, have the distinction of being the only manufacturers of aërated waters who exhibit, and the display which they make is altogether creditable. It consists of bottled and syphoned beverages, the latest thing in the aërated line being an Indian bitter tonic which makes an excellent pick-me-up—next morning. Cordials and fruit syrups are also included in the exhibit.

Hertz & Collingwood, Sussex Place, E.C, return to the exhibition this year with a fuller representation of their specialities than before. Rosbach-water, they inform us, still keeps going ahead steadily, and to meet the demands of the catering-trade. they have arranged to put "splits" on the market in a few weeks. Their splits are to be closed with the new crown cork mentioned in this report. We may note in regard to the mineral-water branch of Hertz & Collingwood's business that they have adopted the trade-mark "H. & C." for their Hungarian aperient water, and doubtless when the public know that this means "Health and Comfort" they will swallow the water the more easily. At this Exhibition Laurent-Perrier's Sans-Sucre champagne naturally takes a prominent place, and we hear that it grows in favour at a rapid rate, medical men especially having endorsed its value as a sound and fine wine. The firm are also pushing their Jerezcona wine, which we have previously referred to as a tonic wine, consisting of hydrobromic extract of cinchona in a matured sherry wine. It is put up in quaint amber-coloured bottles, and as a kind of standardised "sherry and bitters" it is likely to take a lead, which those who hold a medicated-wine licence should not be slow to take advantage of.

Johannis (Limited) are at the left hand of the entrance on passing through the arcade. Since the visit of the Prince of Wales to the Johannis springs the business of the company has had a fillip, which is reflected on the smiling faces of the attendants at the hall; and in conversation they do not hesitate to tell note-taking chiels that the company owes much to the energy of Mr. Maconochie, the manager, who has infused new life into the concern. Mr. Maconochie is about to visit the United States with the object of making Johannis better known there, and it is anticipated that a big thing will result. So far as the present Exhibition is concerned, we may say that the most interesting part of it is the exhibit of showcards and other advertising novelties, all of which combine the artistic and useful in a notable manner. The "Supreme" showcard is one of the prettiest things we have seen for some time.

British wines are plentiful. Samuel Gulliver & Co. (Limited), of Aylesbury, make a good show with these, their stand being nicely arranged in the form of an arch made of casks and bottles of their goods. Hard by them the proprietors of Stone's Ginger Wine have a couple of tasting-rooms, and in the same corner Joseph Hobson & Sons, of Leeds, make a display. The last-named firm also show cherry-brandy and peach-bitters, as well as various cordials and colourings. Beaufoy & Co., 87 South Lambeth Road, S W, best known, perhaps, for their vinegar, also come under this section.

Kops's Brewery, Wandsworth Bridge Road, S.W., have two stands: one—big rather than handsome—simply contains two heaps of barrels of the firm's "Shandy Gaff" and "Old Style Brewed Ginger Beer"; at the other Kops's non-alcoholic fermented beer is exhibited.

The Hop Beverage Company, of Manchester, show a pyramid of non-intoxicating hop-stout and hop-bitters. Sarcastic chance has placed them just opposite one of the numerous bars which line the sides of the hall.

There is a much better show of cider this year than we have seen for a long time, which is probably owing to the excellent fruit-season this has been. John Symons & Co. (Limited), of Totnes and Ratcliffe, E., take the lead in this department, their "Symonia" and "Sydrina" being beverages of excellent bouquet and great refreshing power. We almost regret that the firm make use of the fulsome testimonial of a Dr. Gilbert Sutherland, who has lately been writing up food-products in two London newspapers, for the quotation from his article shows the initiated that he is not well acquainted with the subject he has written about. He refers to 3 per cent. of alcohol, apparently assuming that as the Excise limit for a non-excisable beverage, whereas 2 per cent. of proof spirit is the legal limit, although the authorities do not prosecute if the proportion is under 3 per cent.

Bottles and Stoppers.

The newest stopper is one introduced into this country by the Crown Cork Syndicate (Limited), 11 Queen Victoria Street, E.C. This stopper is an American invention, and resembles that used for Trommer's malt preparations referred to in our Summer issue. The stopper consists of a disc of tin with corrugated edges, in which there is inserted a disc of cork, and between the two a circular piece of impervious paper. The bottles used must have a double rimmed neck, and to these the stopper is fixed by a corking machine with a movement of a foot-lever. The stoppers are removed by a hand-lever, but for bar-trade there is a small capsule-like arrangement fixed to the bar, and on inserting the neck of the bottle into this and raising the bottle the cork comes off readily. In fact, the ease with which the cork is removed is the advantage claimed for it over ordinary corks and stoppers. The "Crown" cork has been taken up by beer-bottlers, and several leading aërated-water manufacturers, and its efficiency as a stopper has been tested up to 200 lbs. pressure

John Kilner & Sons, Wakefield, show "all kinds of bottles for the mineral-water and kindred trades," amongst which we noticed druggists' bottles and feeders, and they were nice specimens, too, the metal being clear and the bottles well finished.

J. W. Dobson, Barnsley, shows the "four-way patent" bottle for steam-fillers, and "Codd's" globe-stoppered bottles occupy, as usual, a considerable proportion of the space allotted to the house.

In the exhibit by the Indiarubber, Guttapercha, and Telegraph-works Company (Limited) we observed two kinds of ebonite screw-stoppers, which are worth contrasting. The first is the old style; the second (Riley's Patent) has a shoulder under the top rim, the effect of which is to keep the rubber ring secure, and this it does effectively. The same company are makers of rubber tubing, and, of course, the rings indispensable in the soda-water trade nowadays.

Barrett & Elers (Limited), Lambeth, occupy their old position with an exhibit of screw-stoppers and bottles. Redfern Brothers, of Barnsley, exhibit good samples of soda-water bottles, and specimens of their soda-water boxes, the feature of which is that the bottom spars are solid, but have a triangular piece of wood cut out the whole length, so as to provide a resting ledge to protect the bottom from wet floors. This is generally effected by nailing spars of wood upon the bottom.

Syphons, &c.

There is little distinction about the exhibits of syphons and seltzogenes this year. On the ground-floor the exhibitors are Durafort et Fils (Paris), The Glass lined Syphon Company (Limited) (St. John Street, E C.), Gueret Frères (Paris), W. Barnard & Sons (Fenchurch Street, E C.), and A. Lozé & Co. (Liverpool) The Glass-lined Syphon Company have further improved upon their invention by introducing a new valve made of vulcanite and asbestos (the latter predominating), so that the water does not now touch ordinary indiarubber in its passage in and out. It may not be generally known that in making these

parts the tin is poured upon the glass, and in this connection we may add that the company are now marking the syphons with the name of the owner upon the bottom, this being stamped in while the metal is in a state of fusion. This cannot be removed for a penny, as the sandblast label is done. Lozé & Co.'s syphon is a peculiar one. The head and nozzle are made of earthenware in one piece, and in this the glass tube is inserted. The whole is then enclosed in a tin covering with lever, &c., so that it is substantially a glass and china head encased in tin. Another peculiarity of the head is that it is valveless. At the top of the tube and nozzle is an indiarubber disc, which is kept down by a spring placed above the lever, so that when the spring is moved the disc is raised and the water flows out. In the galleries, a splendid exhibit of syphons is made by Idris & Co. (Limited), who have carried the manufacture of these to a high point of perfection. Paul Mitton (25 Coleman Street, E.C.) exhibits the syphons and seltzogenes which we described last year, and also a clever little apparatus for aërating water and filling it into syphons. This consists of a small cylinder of about 2 gallons capacity, which is charged with gas from a tube of liquified CO_2, and at the other side is the syphon-filling arrangement. The whole is compact, simple, and moderate in price. A full description of it would be valueless without an illustration, which is not yet available, as the apparatus has just been imported from Paris.

Stoneware.

Exhibits of stoneware seem to be better this year, if not more numerous. One of the best on the ground floor is by Joseph Bourne & Son, of the Denby Pottery, who have quite a considerable trade with druggists, jars and ginger-beer bottles being amongst their principal lines. They have just perfected a screw-bottle for ginger-beer, and this is likely to be the favourite style in the future. Stoneware bottles are produced at an astonishingly low figure—for example, 1*d*. furniture cream bottles are placed on the market at 1*s*. 10*d* a gross. These are the work of boys.

The Fulham Pottery and Cheavin Filter Company (Limited) have also a good selection of stoneware goods, and beside them on the ground-floor are Price, Sons & Co., of Bristol, with well-made stoneware bottles and jars, but it is the jars which form the principal part of their business.

Stoneware-jars and pottery can be made to form a good display, and it must be said that James Stiff & Sons, of Lambeth, S.E., have made the most of their opportunities in this respect. The firm's exhibit comprises some good stills, retorts, and acid bottles.

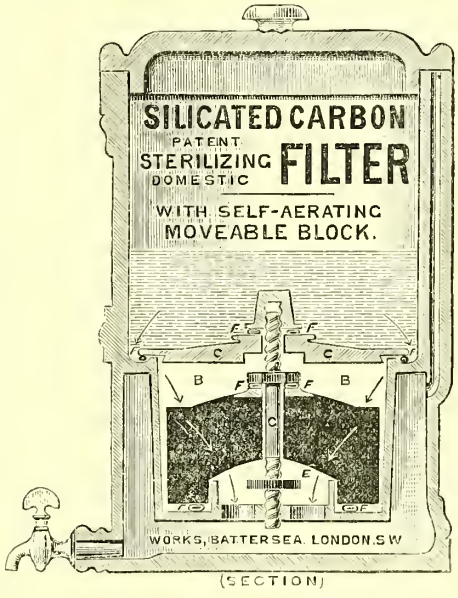
In the galleries Doulton & Co., of Lambeth, have a really magnificent show of pottery sympathetic with the Exhibition, some jars of the greybeard type being exquisite works of art. These are, of course, shown to add attractiveness to the exhibit, which generally is one of stoneware bottles and jars for beverages. We observed some ginger-beer bottles glazed a unique brown, and nicely labelled in black. The exhibit also includes a selection of the Doulton-ware glass heating-stoves, and some samples of chemical ware. Geo. Skey & Co. (Limited), Wilncote Works, near Tamworth, also exhibit stoneware, a nitric-acid still and condenser being one of the foremost attractions. This firm manufacture most kinds of druggists' stoneware.

Filters.

The sales of water-filters have fallen off considerably lately, partly on account of recent articles in the medical journals, but this decline is made good by the increased business in other filters. We were shown a very handy one of this kind, in which the filtering-liquid passes through a cloth-frame filled with pulped paper, and which is specially useful for dealers in syrups. The same system can be used for filtering lime-juice or acids, in which case the vessel is made of wood or earthenware, and the filtering-material of asbestos.

Maignen's "Filtre Rapide" Company (Limited) seem to have paid less attention to the water-filter section of their business this year than formerly. They make a big show, however, of their water-softening plant, the working of which was explained to our representative by the courteous gentleman in charge of the stand. The firm supply the plant complete at from 15*l*. upwards, according to capacity. A 35*l* plant will soften 50 gallons of water an hour. The bulk of the business has hitherto been with owners of private houses, but a not inconsiderable number of mineral-water makers have purchased plants, and it is for these customers especially that the Messrs. Maignen come to the Exhibition, for brewers, of course, want to use the hardest water they can get; and for soda-water, also, hard water is the best. The softening-apparatus is simple in the extreme. The anti-calcaire powder is placed in a container with an adjustable aperture The container is set in motion by a water-wheel, which, in its turn, is set going automatically by the incoming water. Each turn of the wheel liberates a small quantity of powder, which, combining with the solid matter in the water, precipitates that matter in a cone-shaped vessel. The water then passes through two tanks and a set of filters, from which it emerges perfectly clear.

An improvement which has recently been made by the Silicated Carbon Filter Company, of Battersea, in the mode of charging their pressure needle-filters is shown at the Brewers' Exhibition for the first time. The density of



(SECTION)

the cone has been so much increased that the filter is now claimed to be practically germ-proof, while an improvement in the screw of the inlet-cap enables the user, when the filter needs cleansing, to remove the whole of the granular carbon in a lump, instead of scraping it out by bits, as in the old type.

Jacob Barstow & Sons, of Ferrybridge, Yorkshire, have a fine display of filters, both for domestic use and for mineral-water makers. They do not, however, show anything new.

Both the Berkefeld and Chamberland-Pasteur filters find places in the galleries, and attract much attention, as they are those which Dr. Sims Woodhead found to be the best in regard to the removal of micro-organisms from water. In this respect the Chamberland-Pasteur stood at the head of the list. J. Defries & Sons (Limited), Houndsditch, E.C., are the agents for this filter, and they report a gratifying increase of trade recently.

The only other filter to which we refer is one that is new to us—Wittmann's spondolite filter—in which the filtering medium is a basin composed, we understand, of animal charcoal and asbestos.

Isinglass.

"Isinglass is not the druggists' article it used to be," said J. W. Hart & Co.'s representative to ours. "I remember the time when wholesale druggists would buy 1 or 2 cwt. of the best Russian from us at a time; but if they take 7 lbs. now, we consider that big for them." "How do you account for that?" "The rage for cheapness. People use gelatine, and those table-jelly things. No, it is not only the working

classes that use the jelly. The fact is, people don't properly appreciate the difference between isinglass and gelatine. Isinglass is a food; gelatine is not." Our representative heard other interesting facts—for example, the Queen has a little of the best Russian isinglass put into her soup, and it is supplied to Balmoral by an Aberdeen firm. This is a good old fashioned thickening for soup, which has more in it than at first sight appears, for the isinglass takes kindly to the stomach. Formerly doctors recommended it quite freely for the purpose of making jellies, but they appear to have done this in ignorance of the specific advantages of isinglass, and this fact doubtless accounts for the facile change to gelatine substitutes. It is a curious fact in connection with the use of isinglass for fining-purposes that the purchasers of the finest kinds are Scotch brewers. The manner of using isinglass for fining beer is simple: the cut substance is immersed in water until it is soft, then it is passed through a coarse sieve, next through a finer one, and these fine siftings are immersed in more water to form a stiffish jelly, which is added to the beer, a comparatively small quantity sufficing to clarify a barrel of beer.

Isinglass, in the rough and cut, is also shown by James Vickers, 6 Devonshire Square, E.C. Callers at Messrs. Vickers's stand may admire and compare the specimens of different varieties of isinglass—East and West Indian, Russian, Brazilian, Chinese, and so forth—which are stuck upon the deep-blue wall of the stand, like bats and lizards on a barn-door.

Herring, Giles & Co., Church Street, E.C., also exhibit isinglass in excellent style.

Printing.

It is at such exhibitions as this that one gets the best representation possible of modern lithography, for printers are agreed that if it were not for the beer and whisky trades lithography would be practically a dead art. There are excellent exhibits of showcards by Armitage & Ibbetson, of Bradford, who inform us that they make showcards for a number of drug-houses. Sir Joseph Causton & Sons, of Southwark, who have, amongst a multitude of whisky and beer showcards, a pretty one for Rowland's toilet-preparations, done by lithographic printing on enamelled iron, the enamelling process being done at such a low temperature that the natural reds are not changed by the heat. Horrocks & Co., Manchester, are another firm who have placed a good lithographic exhibit on the ground floor.

The showcard and label exhibits, in the back portion of the hall, do not show any remarkable originality; and, upon looking at some of the stalls of alleged "Art" exhibits, one is almost tempted to vary the well-known quotation by exclaiming, "Art! what crimes are committed in thy name." There is a firm of "Artistic Gold Blocked Show Card" makers, whose stand glares with highly-coloured representations of smirking ladies, interspersed by such artistic cards as "To the Lavatory," and others. There is also a spot in this section where the visitor beholds a bewildering array of metal tablets and hands, pointing in all directions of the compass, and apparently beckoning him at once to proceed to "Billiards," "Bar," "Smoke-room," and other luxuriant retreats. But, alas! things are not what they seem. The smoke-room is a delusion; the bar a myth. For these be the Koh-i-Noor polished brass and copper letters, and in the centre of the maze sits a placid gentleman, the representative of John Marston (Limited), of Wolverhampton, apparently oblivious of the tantalising signs that surround him.

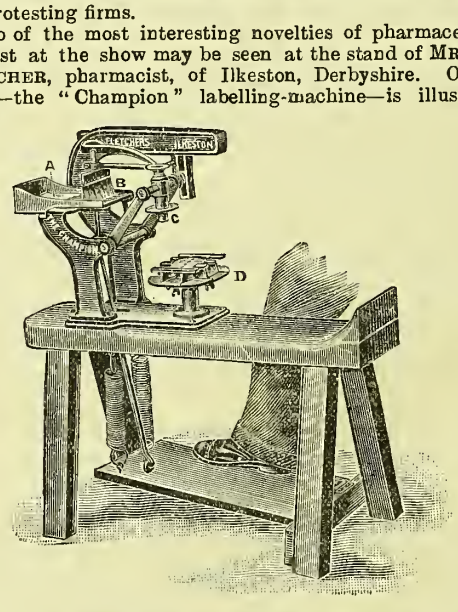
In the galleries there are about a dozen firms exhibiting lithographic printing and other advertising devices, and this section we can cordially commend for inspection, for it is not possible to do them adequate justice by description. We were particularly struck with the exhibit of one Irish house, James Walker & Co., Dublin, who are reproducing in a secret style of monochrome those beautiful photographs of costumed figures by Lafayette which the *Album* has been popularising. The firm also make mirror showcards, in which a piece of mirrored glass is combined with lithographed pictures. S. Hildesheimer & Co. (Limited), Silk Street, E.C., make one of the most artistic displays in this branch. The delicacy of the colours in Hildesheimer pictures is well known to chemists who have used their almanacks and calendars. The firm are introducing a new style of showcard, consisting of lithographed female figures draped and becapped with lace and tulle, the whole being enclosed in a frame-case, whereby the figure stands out boldly in relief. One of the largest soap firms has taken up this style of card, and soon it is expected to be known all over. Cut-out figures are another feature of this exhibit, also magic leaves (for producing a picture by rubbing with a pencil); and for Christmas trade there are all sorts of novel "cards," including boxes of pills wishing one "a merry Christmas." Some chemists may be able to take up the last-mentioned idea. Although not exactly in this department, we may mention here the exhibit by the Vitreous Enamelled Glass and Tile Company (Lower Clapton), who have a system of painting upon glass and earthenware, which after firing remains in relief. This is handsome, and is well-adapted for doors, screens, and showcards—in fact, the method has been utilised in fitting up and decorating pharmacies.

In apparatus for reproducing writing and printing we observed a good exhibit by the Cyclostyle Company (Gracechurch Street, E C), and had the opportunity of trying the automatic machine, also the company's arrangement for reproducing typewriting, an exceedingly simple process, involving no more work than in typewriting and copying. Ellam's Duplicator Company (King Street, E.C.) also exhibit their duplicator and letter copier.

Machinery.

We have already indicated that the exhibits of aërated-water plant are at a discount this year. The principal exhibitors are W. Meadowcroft & Son (Limited), who have a highly creditable display on the ground-floor, but, as far as we could ascertain, they have nothing novel this year. The company also exhibited soluble essences. Barnard & Son, Chapman & Son, Farrow & Jackson, and the Volcanic Aëration Company also exhibited aërated-water machinery, but the exhibits lacked the attraction and magnitude of those which we have been accustomed to from the protesting firms.

Two of the most interesting novelties of pharmaceutical interest at the show may be seen at the stand of Mr. Wm. Fletcher, pharmacist, of Ilkeston, Derbyshire. One of these—the "Champion" labelling-machine—is illustrated



above. The present machine has been evolved out of a less perfect predecessor, a specimen of which stands in a corner, as a skeleton of Palæolithic man might be shown in a museum. The perfected machine really does its work with remarkable neatness, and the attendant was kept busy all the afternoon gumming labels on to beer-bottles for the edification of the select congregation of visitors, and then pulling the labels off again. The working of the machine is simplicity itself: *a* is a gum-trough, *b* a gum-pad and brush, *c* the gumming-stamp, and *d* an adjustable label-holder, which can be fitted to take labels of any shape or size. When the treadle of the machine is pressed the gumming-stamp travels to the pad, where it collects just

sufficient gum to moisten the top label, upon which it next falls, pressing it firmly on the bottle, which has been placed in position on the label-holder. The improved machine costs 6*l.* 10*s.*, and should be worth the money, for, as our representative stood by the stand, a customer came up and declared that a machine of the old type was saving him 10*s.* a week in wages.

The other novelty at Mr. Fletcher's stand is a patent automatic carbonating tap, consisting of a small brass ball, which is filled with compressed carbonic-acid gas from one of the familiar tubes, and then fixed to the tap of the vessel containing the liquid which requires aëration. The great advantage of the "carbonating tap" is that it enables people to aërate small quantities of liquids.

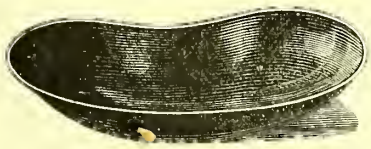
Bowie & Dodd, 4 Cullum Street, E.C., show one of the most interesting novelties in the Exhibition—viz., a syphon-bottling machine for ginger-beer and other liquids. The machines are made by the North London Construction Company, of Waltham Cross, and are now shown in public for the first time. The machine, according to one of the proprietors, "fills bottles four times as quickly as any other machine on earth." We certainly saw it fill two dozen bottles in an ordinary box, at one operation, in about ten seconds. The machine consists of two main portions, the front portion being a system of tubes which can be lowered by a chain arrangement on the drawback principle, below which the boxed bottles to be filled are placed, each tube being placed into the neck of one bottle. The back-portion of the machine consists mainly of a tank connected with the vessel from which the bottles are to be filled. A tap is turned on which fills the container, and upon moving a lever the liquid is transferred to the bottles.

We may fitly include in this section reference to Wm. Gardner & Sons' exhibit of mixing and sifting machinery. The firm seldom enter an exhibition without something new, and on this occasion they have a dressing-machine, by means of which powders can be dressed to various degrees of fineness. In it a cylinder with three projecting arms revolves in a sieve, and as an assortment of sieves is supplied with the machine, one has but to start with the finest in order to get a grinding sorted into varied fineness of powder.

Spong & Co., of High Holborn, exhibit samples of their domestic machinery, which include grinding-mills equally suitable for pharmaceutical purposes. There are other exhibits of machinery, but none of special pharmaceutical interest which we have not hitherto reported upon.

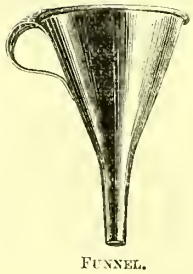
Aluminium-ware.

In the galleries there is an exhibit of aluminium ware, mostly articles suitable for caterers; but we picked out some things which we think will interest the drug-trade, and we group illustrations of them here. Aluminium is the coming

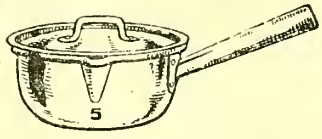


Pus Basin.

Sponge Case.



Funnel.



Suppository Pan.

Ointment-box.

metal, and already most of the above-illustrated goods are stocked by such houses as Maw's. They are manufactured by F. Braby & Co., Fitzroy Works, Euston Road, N.W., who also produce in aluminium such chemical apparatus as evaporating-dishes and hot-water bottles. The sponge case is a patent article which is provided with a double casing, the inner one being perforated, to permit draining of the sponge. It is a good line for high-class trade.

Saccharin.

The French, or Monnet's, saccharin naturally attracted a good deal of attention, as this is the first time that the agents (R. W. Greeff & Co., Eastcheap, E.C.) have exhibited it in the hall, and samples were distributed to those interested. We have previously had the opportunity of expressing an opinion upon the quality of this product, but we may repeat that it is excellent, and fully five hundred times sweeter than sugar. From a pamphlet distributed at the Exhibition we note that 1 gallon of water dissolves from 180 to 210 gr. of this saccharin, and similar volumes of the following liquids dissolve the quantities stated—viz., 10-per-cent. solutions of glycerine, glucose, and sugar, 350 gr.; 10-per-cent. acetic acid, 1¼ oz.; 10-per-cent. citric-acid solution, 455 gr.; 10-per-cent. tartaric-acid solution, 385 gr. It is curious that 10-per-cent. alcohol dissolves less—viz., 280 gr.—but the solubility increases with the strength of the alcohol, a 70-per-cent. spirit dissolving 6½ oz., and a 90-per-cent. only 4½ oz.

As noted elsewhere in this issue Wilson, Salamon & Co. (Limited), 165 Queen Victoria Street, E.C., who introduced Fahlberg's saccharin into this country, and have been throughout the distributing agents, have taken the first steps to maintain the validity of the patents by issuing a writ upon Messrs. Greeff. Speaking to one of our representatives, Mr. Gordon Salamon stated that his firm do not exhibit saccharin at the Brewers' Exhibition for the sake of brewers as customers, for they have an understanding with the Excise that they will not sell the sweetener to brewers, its use in that direction being prohibited for fiscal reasons. That, we may say, was originally one of the uses which was hoped to absorb an enormous quantity of saccharin; nevertheless, in spite of that prohibition, the consumption of saccharin has grown past all conjecture, and both in the aërated-water trade and in pharmacy the quantities consumed are startling. It may surprise pharmacists to know that some firms connected with the trade think nothing of ordering 1,000 lbs. at a time. Mr. Salamon claims that his firm have been instrumental in beating down the prejudice and opposition to the use of saccharin, and he mentioned that they have spent 30,000*l.* in securing for it the recognition which it has at present. The preliminary steps have been taken for protecting by patent a new process for the manufacture of saccharin.

Beef Extracts.

The exhibits of concentrated meat-preparations are, as usual, fairly numerous, but they mainly consist of those things which are suitable for bar trade, and are dispensed in the exhibition in tiny cups served by fair damsels. In the gallery Messrs Armour & Co. make a feature of their "Vigoral," a fluid beef of excellent flavour, and they exhibit also extract of beef. On the ground floor are Brand & Co., 11 Little Stanhope Street, W., who occupy their usual stand at the far end of the Central Hall, where they dispense concentrated beef-tea, and show their usual handsome assortment of meat essences, potted meats, sauces, and other delicacies. George Mason & Co. (Limited), of Chelsea, show a new fluid beef which they call "Boma," and a variety of sauces. The "Boma" makes an invigorating and tasty beef-cup quickly.

Miscellaneous Exhibits.

Scientific instruments are well represented by Mr. J. J. Hicks, of Hatton Garden, E.C., who has always made a speciality of instruments for brewers, and on this occasion he exhibits three new thermometers. Two of these are for the mash-tun, one of them being designed by Mr. C. W. H. Bullard, of Norwich, the second by himself. The latter is self-registering on a similar principle to clinical thermometers. The third thermometer is for taking the temperature of the fermenting liquor, and has an ingenious arrangement at the apex, whereby some of the liquor is lifted when the thermometer is taken out of the tun, and this liquor trickling down the stem washes away the adhering yeast, thus enabling the temperature to be read. Mr. Hicks has also introduced a modification of

Bates's saccharometer, for taking the specific gravity of mash. The feature of this is its smallness, the instrument with the weight attached measuring $7\frac{1}{2}$ by $1\frac{3}{4}$ inches, and it is beautifully finished.

Among the firms who have taken space, knowing that their exhibits only appeal to a section of the visiting public, are Day, Son, & Hewitt, 22 Dorset Street, Baker Street, W. "Our object in coming here," said the firm's representative, "is to call the attention of brewers and other horse-owners to our horse-remedies, chief among which are the 'red drench,' 'red paste-balls,' 'black physic-balls,' and 'condition powders.'" The firm also show a considerable number of medicine-chests, while a Royal Warrant, dated 1866, appointing the house "purveyors of chemical compounds for diseases in sheep and cattle," infuses confidence into its standing.

An ingenious contrivance is Mr. F. Crichton's (45 Mount Pleasant, W.C.) "Simplex" gold check, for changing gold coins of standard weight only. Any other gold coins or spurious imitations, such as gilt sixpences, this incorruptible automatic money-changer sternly rejects. The "Simplex" works on the principle of the familiar penny-in-the-slot machine, but instead of drawing out matches or sweets, your sovereign or half-sovereign, when placed in the slot, liberates a brass cup containing change for the coin. There are twenty-two such cups superposed in the receptacle at the side of the machine, the last one being blackened in order to indicate the fact that, with it, the container is emptied.

Hassall & Co, Stratford, continue their exhibit of phospho-citric acid. A similar article, called liquid tartaric acid, is exhibited by the Manchester Chemical Company in the Arcade, but this is only one of many things which they trade in. One of their principal manufactures is malt-extract for brewers and confectioners. This they claim to be of as high diastasic value as any in the market, but it is quite devoid of the odour of malt. We ought to say that the extract is not offered for medicinal purposes, but we should like to know how high diastasic value and non-malt odour happen to go together.

Crawford & Co., Wellclose Square, E., exhibit once more their enamel for lining casks. This resembles, when finished, a thin coating of Brunswick black, but the enamel is applied to the hot wood, which is then heated strongly, the result being that it sinks into and fills the pores of the wood, leaving a thin coating on the surface, which is not attacked by spirituous liquids or weak acids, such as vinegar, but cannot stand turpentine or similar liquids.

E. Webb & Sons, Wordsley, Stourbridge, make their usual fine display of barley, hops, and hop-manures, as well as of home-grown seeds. This is a typical exhibit of a large section.

Geo. Adlam & Sons, of Bristol, have specimens of cask-washers and of dust and air filters. The machines are interesting, but possess no novel features.

The exhibit of The Sanitas Company (Limited), of Bethnal Green, E., can be perceived by the sense of smell a good distance off. The inhalers, fumigators, and sulphur-candles make a big show. The newest thing in the exhibit are the sulphugators for fumigating small spaces, which have already been described by us. An ingenious advertisement is distributed in which clippings from Shakespeare are made to recommend the "Sanitas" goods.

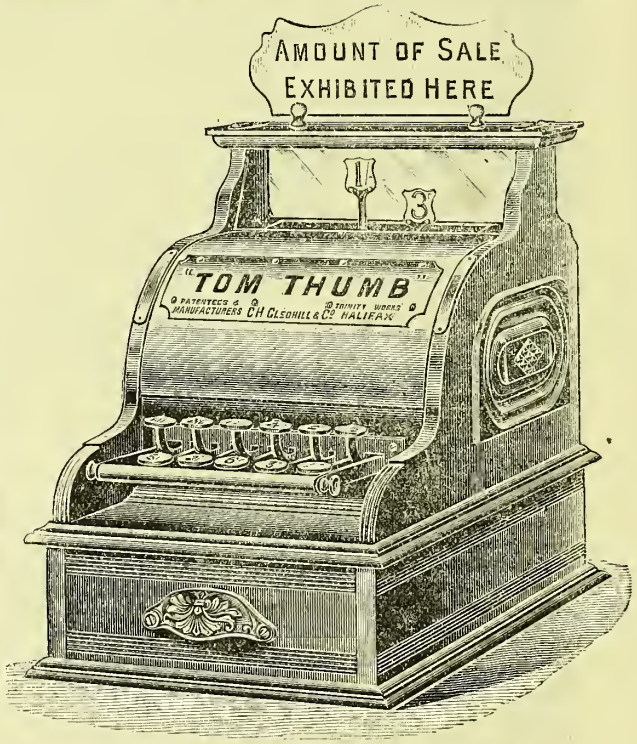
There is a large display in the gallery of "Nugget" polishes for harness, boots and furniture, made by Lane & Fitte, of 331 Kennington Road S.E., the peculiarity of which is that they are put up in boxes. More may yet be heard of these, for we note that the Prince of Wales's harness is dressed with the "Nugget" polish.

Those who wish to see what steel barrels are like will find a large exhibit of them in the galleries. The barrels are made by the Iron and Steel Plant Company (Limited) by Caird's patent.

Grimble & Co. (Limited), of Cumberland Market, N.W., exhibit their pure-brewed vinegars, of which they have three kinds—distilled white, Orleans (a pale vinegar), and pure table (the darkest) These contain uniformly 4·2 per cent. of acetic acid, wholly derived by the fermentation of malt and grain, and free from wood acid and mineral acids. The vinegars are of excellent aroma, and are nicely put up for retailing. There is also in the exhibition a stand of vinegar made from dates, but we could learn nothing of the process by which it is made.

Amongst other articles which we may note as shown in the galleries are Clark's well-known syphon stoves, the Rosmarine Company's perfumes, and Kentbury patent bags (made by Bronsdon & Scales, 46 Queen Victoria Street, E.C.)

G. H. Gledhill & Co, of Halifax, are the people who, according to the statement on their exhibit, "till the world." They also wash and rinse the world's bottles, but tilling—check-tilling—is their chief business. One of the newest machines in this line is the "Tom Thumb," which appears



to be the acme of time-saving. You press a button of the machine and a bell rings, while the cash-drawer unlocks and opens. The tablet showing the amount of money received goes down prior to this operation, and a new tablet showing the amount registered appears. Change is given to you without any possibility of mistake, and the machine at the same time gives a receipt.

Art coupled with industry is represented in the gallery by Messrs. Morris, Goldstein & Co, who manufacture renowned watches and chemical diamonds. The diamonds flare, and the renowned watches tick for all they are worth, attracting the fair sex like moths, and many a youthful visitor in tall collars and long tailed coat was observed by our representative to load his yellow-haired Dulcinea with several pounds' weight of the treasure at the reckless expenditure of eighteenpence, or thereabouts. Fortunately the Brewers' Show only comes once a year. Altogether, there is an air of a Walworth Road golconda, blended with a Westralian gold venture about the exhibit which causes us to wonder why a firm so rolling in gold, watches, and diamonds, should want to announce that they have obtained "eight gold medals."

Prizes for Beverages.

As in former years two gold, silver, and bronze medals were offered for the best ginger ale and the best non-excisable botanic drink. Two certificates of merit in each class—"Very highly commended" and "Highly commended"—were also given by the Jurors, who were Messrs. W. Brathy, J.P., John Clayton, T. H. W. Idris, James Meadowcroft, and John Goodfellow, Ph.D. There were over a hundred entries, and the following awards have been made:—

Ginger Ale—1st and gold medal, J. Pennington, Hanley; 2nd, silver medal, G. Briggs, Leeds; 3rd, bronze medal, Shelvey & Co., Brighton; v.h.c., G. Begg, Bolton; h.c., F. C. Patchelor, Alresford, Hants; h.c., East Brothers, Louth.

Non excisable Fermented Beverages.—1st and gold medal Morrison & Townend, Castleford; 2nd, silver medal, E. Short, Goole; 3rd, bronze medal, Kentora Brewery Company, Nottingham; v.h c, J Simpson, Hebden Bridge; h.c., E. Mercer, Blackburn; h.c., E. Lyons, St. Helens.

Messrs. Bratby & Hinchliffe (Limited), one of the protesting firms, have during this week a special demonstration of their latest specialities in full working order at their London branch, 146 Minories, E, and Mr. S. Hinchliffe is in attendance to meet visitors and explain the machinery. The exhibits include a novel invention for antomatically snpplying the corks to any corking-machine, whether for aërated or still liquids. This can be attached to any machine.

New Companies and Company News.

Brown, Walker & Co. (Limited).—Capital 300*l.*, in 1*l.* shares. Objects: To acquire and carry on the following business carried on by Wm. W. Walker, viz.—"Woodhall Brothers," glass manufacturers, of the Coalbonrn Hill Glass Works, Stourbridge, and "A. P. Walker & Co." glass factors of the glass works, The Platts, Stonrbridge. The first directors (to number not fewer than three nor more than five) are: A. M. Brown, W. W. Walker, and E. Brown. Qualification, five shares Remuneration as the campany may decide. Registered office, Coalbonrn Glass Works, Stonrbridge, co. Worcester.

Leith Salt Company.—Capital 1 500*l.*, in 1*l.* shares. Objects: To enter into, carry on, and conduct the business of manufacturers of salt and dealers in salt and other chemicals. First subscribers: Alex. White, warehouseman, 36 Restalrig Terrace, Leith; Robert Simpson, commission agent, 2 Dock Place, Leith; Archibald Simpson, Ronaldson's Wharf, Leith; P. Mackenzie, S S.C, Edinbnrgh; A B Fletcher, law clerk, 143 Princes Street, Edinbnrgh; Thos. Scott, engineer, 9 St. Vincent Street, Edinburgh; R. Fortune, solicitor, Edinbnrgh. First directors: John Wilson Watson-Varo Terrace, Stockton-on-Tees; Archibald Simpson, Ronald, son's Wharf, Leith; and Peter Mackenzie, S S C, Edinburgh.

Sandell Works Company (Limited).—Capital 5,000*l.*, in 1*l.* shares. Objects: To acquire and deal with a patent for "an improvement in the manufacture of sensitive-plates for photographic purposes," to enter into an agreement with J. T. Sandell, and to acqnire and carry on the bnsiness of a photographer carried on by him. The first snbscribers (each with one share) are: C. T. W. Drake, City of London Infirmary, Bow Road, E., steward; Mrs. E. E. Sandell, and J. T. Sandell, photographic chemist, both of 23 Bensham Manor Road, Thornton Heath; A. Ward, 18 Barrington Coad, Crouch End, clerk; J. Syer, 58 Thistlewaite Road, Lower Clapton, clerk; F. W. Excell, 209 Albion Road, Stoke Newington, writer; G. Mason, 76 Achlam Road, North Kensington, clerk. The first directors (to number not fewer than two nor more than four) are to be appointed by the subscribers. Qnalification 500*l.* Remuneration, as decided by the company. John T. Sandell is to be the managing director for seven years; remuneration, 300*l.* per annum, after the shareholders have received 500*l.* as dividend.

Castner-Kellner Alkali Company (Limited)—Capital 300,000*l.*, in 1*l.* shares. Objects: To enter into an agreement with the Aluminium Company (Limited), and to carry on the business of mannfacturers of and dealers in chemical products and drugs, rock-salt proprietors, miners, mine owners, white salt proprietors, dyers, drysalters, soap-makers, paint and colour mannfactnrers, &c. The first subscribers (each with one share) are:—H. J. Castner, 13 Abchnrch Lane, E.C., chemical engineer; H. E. Roscoe, Kt., 10 Bramham Gardens, S.W.; J. S. Parkin, 11 New Square, Lincoln's Inn, W.C., barrister; G. H. Clarkson, 10 Matheson Road, West Kensington, secretary; A. Clarke, Lt.-Gen., 42 Portland Place, W.; G. M. Hill, 117 Cannon Street, E C., solicitor; L. E. Townroe, Grange Road, Norwood, S.E., gentleman. The first directors (to nnmber not fewer than five nor more than seven) are to be appointed by the subscribers Qualification, 1,000*l.* Remuneration as the company may decide.

Sequah.—At a meeting of the shareholders in this company, held on October 18, Mr. Isitt, the chairman, stated that no shareholders had responded to his invitation to give a better price for the property than his syndicate had offered, but a number had expressed a desire to come into the business with the syndicate. Conseqnently, the directors were willing to abate their holding to a reasonable extent in order to allow such an arrangement to be made. The liquidator wonld now sell the business to the new syndicate at a price calculated on the basis of three years' profits, the amount being 3,415*l.* Arrangements had been made to take over the old stock, but the book-debts would remain for the benefit of the old shareholders. There was no knowing, however, what these would fetch. The capital for the new ventnre had been more than snbscribed. The confirmatory resolution to wind np the company was unanimously carried.

A & F. Pears (Limited).—The third ordinary general meeting of the shareholders of A. & F. Pears (Limited) was held on October 21 at the Holborn Restaurant, W.C., Mr. Thomas J. Barratt (the chairman) presiding. The Chairman stated that it was with considerable satisfaction that, notwithstanding the anxious times throngh which all traders had been passing, they were able to pay a dividend of 6 per cent. to the preference shareholders, 10 per cent. to the ordinary shareholders, and 7½ per cent. to the deferred shareholders. In addition, they had paid the debenture interest and carried 5,000*l.* to the reserve, and had written off depreciations of 3,828*l.* This was after having met and charged to expenses a very liberal amount for any possible damage to plant. Further, they carried forward 2,500*l.* The profit made was practically the same as last year, and they had achieved that result at a less expenditure. He (the Chairman) had taken twenty industrial companies, and fonnd that they pay an average of 5½ per cent. per annum in dividends upon the market price of the shares. Their ordinary shares, at the advanced price of 6½, yield 7½ per cent. They had, too, fnnds provided for depreciation and reserve amounting altogether to over 55,000*l.*, equivalent to 10 per cent. on the whole of the capital. All their plant, too, was equal to new, so that also was a good solid security. They had 91,000*l.* invested in Consols and in their own debentnres, and these were worth now 8,000*l.*, more than the price at which they were set down. And they had 69,000*l.* at their bankers, which in the dull times they had experienced they had not been able to employ to advantage. A proposal was before them to divide their 5*l.* shares into 1*l.* shares in order to interest more people in their business. It was possible the shareholders might be called upon to consider that proposal. After the re-election of retiring directors and in reply to some comments, the Chairman said he would like to assure the shareholders, on his honour as a gentleman, that the quality of Pears' soap had never varied. It was just as good as they knew how to make it. They made a good profit out of it, and they conld afford to give the best soap that conld be made. If, however, anybody knew how to make a better soap, the directors wonld be prepared to pay that individual a very good price to teach them how to do it.

Brandies and Wines.—At last week's meeting of the Paris Academy of Medicine, M. Daremberg gave details of his researches on the properties of certain alcoholic beverages. He has experimented on rabbits, injecting in the veins of their ears equal quantities of certain liquids of similar alcoholic strength. He found that the finest cognac, costing 60f. per litre, injected in this way caused the immediate death of the rabbits, while the commonest brandy had no effect whatever. For these experiments it was necessary to dilute the alcohol to below 40°, in order to avoid the coagnlation of albnminoid matter. He also finds that red wine is more poisonous than white wine, when the latter is prodnced solely by the fermentation of the juice of the grape, and he attribntes this to the fact that red wine is always obtained by the fermentation of the skin and stones of the grape, in addition to the jnice.

The Winter Session.

THE CHEMISTS' ASSISTANTS' ASSOCIATION.

AT the meeting held on October 17, Mr. E. W. Hill (President) in the chair, thirty members were present and ten new members were proposed. Mr. FRANK R. STEPHENS read a lengthy paper on

SOME LONDON WATERS,

in the course of which he gave much practical information on the analysis of waters, especially in regard to the means of detecting organic contamination, to which part of his subject he limited his observations.

In view of the proposals for the abandonment of rivers like the Thames and Lea for the London water-supply, and the substitution of water from an uncontaminated source, Mr. Stephens had procured half-a-dozen samples of Lea water and examined them. All the samples reported upon were taken during the intensely hot and dry weather of last summer. The first sample of Lea water was collected by the bank of the river about 300 yards below South Tottenham Lock; sample No. 2, from a stream which enters the river in this reach; the next sample from mid-stream, about 300 yards above the lock; and the next about three miles further up the river. At Ponder's End factories lie close alongside the river bank—oil-cloth and linoleum works—and, whatever degree of purity may be claimed for the water, there is no doubt of the contamination of the air. A Winchester of water was obtained from the river there, where, according to local authority, a water-company takes in a supply. The analyses of these waters were shown on a chart. The Lea water at Ponder's End could not be classed within the category of organically pure waters; at any rate, before it had undergone an extensive filtering process. It yielded an excessive amount of free, and albuminoid ammonia (·017 and 031 respectively). The river three miles lower down differed comparatively slightly. The river above South Tottenham Lock showed in some respects signs of increased contamination, but the sample obtained below South Tottenham Lock was to all intents and purposes effluent water (free ammonia ·72, albuminoid ammonia ·096). The source of its excessive contamination is probably the tributary which joins the Lea in this reach, the analysis of which showed the free ammonia to reach the high figure of ·852 per 100,000. From these data we might infer that the system of drainage in that neighbourhood, in spite of costly arrangements, is lacking in some important detail. A stream, dignified by the title of Moselle river, collected at St. Ann's, on analysis appeared to be also an open sewer.

The Thames water at Richmond was collected at half tide. It also yields a large quantity of free and albuminoid ammonia (·091 and ·021), but the small proportion of chlorine present (3·4) is noteworthy, although the sample was taken well within the tidal portion. The Thames at London Bridge was taken one hour before low water, and, as might be expected, the amount of chlorine present (107·3) is large, showing its admixture with sea-water. It compares favourably with some of the water from the Lea.

The New River sample was taken one evening from the stream where it flows under the Seven Sisters Road; the analyses showed the difference between the water derived from the river and that obtained from tap in the laboratory, the most important variation being in the albuminoid ammonia. [The analyses in these cases were as follows:—Solids, 34·3 (34·3); hardness, 16° (16°); free ammonia, 006 (000); alb. ammon, 011 (003); oxygen absorbed in 15 minutes, 0·32 (·007); in 4 hours, ·070 (·023); N in nitrates and nitrites, ·241 (·20); chlorine as NaCl, 3·7 (3·4); alkalinity as $CaCO_3$, 22·8 (21·4). The figures in parentheses are those of the tap-water.]

The Regent's Canal water is a good example of a polluted water. The sample was taken during the height of the bathing season. The free ammonia was ·018, and the albuminoid ·135.

In addition to contamination from the bathers, the stream flows in close proximity to the Zoological Gardens, and also has a residential population afloat on its surface in the persons of the bargees and their families, not to mention the fact that it receives the surplus population of cats and dogs of the neighbourhood. The deposit from the water viewed under a $\frac{1}{5}$ and a $\frac{1}{12}$ objective showed innumerable examples of low forms of vegetable life. The analysis does not show a very large amount of free ammonia, but a greater amount of albuminoid than any of the other river waters. The amount of permanganate used, though considerable, is less than in some of the rivers.

The author next reported the analyses of some bathing ponds.

The Regent's Park lake sample was taken from alongside the boat-house, and the data give some rather curious results. The total solids are 84 parts per 100,000; the hardness also is very high, 40°; there is not a very large quantity of free ammonia, but it stands at the head of the list regarding its yield of albuminoid, which is no less than ·152 parts per 100,000. The quantity of oxygen consumed points to vegetable contamination.

The well-water reported on next was from a well over 400 feet in depth, situated in St. Pancras. The first 156 feet are completely lined with an iron pipe, which was forced by means of hydraulic rams into the chalk, thus effectually sealing the well against surface water. The level of the water remains fairly constant, the variation not exceeding a foot in the course of the year. The pumping capacity of the engines is about 7,000 gallons of water per hour, and it is said that the supply of water is inexhaustible. The yield of free ammonia is very high (·060), but that is cancelled by the absence of albuminoid, and by the very small amount of oxygen consumed by the permanganate process. The presence of the free ammonia may be explained by the reduction which takes place at great depths of the nitrates contained in the water. In this case the nitrates found are a very small amount. The water appears to be organically pure. The alkalinity is probably due to an alkaline carbonate, but the small amount of calcium (or magnesium) carbonates is remarkable.

The remaining analyses were the results of a tour among some swimming baths. From personal experience, the author testified to the absence of any evil effects after unintentionally drinking a considerable amount of bath water, even when the appearance of the same was decidedly repulsive. The analyses of seven baths show that the free ammonia varies from ·06 as a maximum in the water from Junction Road and Caledonian Road to ·006 in the City and Hornsey Road Baths, while the yield of albuminoid is highest —·036—in Hornsey Road and Pentonville, and reaches its minimum—·009—in City Road. From calculations made at the King Street Baths it appeared that at 10 P.M. there had been 137 first-class and 325 second-class bathers, which gave 233 gallons of water for first-class bathers, and 98 for second-class bathers. At 7 A.M. the water appeared quite clear, the pattern of the tiles on the bottom of the bath being distinctly seen; at 10 P.M. the appearance of the water resembled soup. The analytical figures showed the results of the analyses of the water during its various stages of pollution. In order that the organic matter might not have time to undergo any considerable change, the author estimated the free and albuminoid ammonia the following day—in fact, in all the analyses he endeavoured to estimate the ammonia within forty-eight hours.

The process adopted for the estimation of oxidised N in nitrates and nitrites was that of reduction by means of the zinc copper couple, the nitrates being reduced to NH_3.

The presence of free ammonia alone, in the absence of albuminoid, does not prove that the water was contaminated by organic matter, even if in addition it contains marked quantities of chlorine. Neither would the presence of albuminoid ammonia to the extent of 005 part per 100,000 with the absence of an appreciable amount of free ammonia point to pollution, but that quantity of albuminoid ammonia together with free HN would be very suspicious, while ·015 parts of albuminoid NH should certainly condemn a water. Looking at the O absorbed process, it is necessary to remember that ferrous salts, nitrites, sulphuretted hydrogen, will all reduce permanganates. There are two standards adopted in Sutton. For upland surface waters the figures are:—"Great organic purity, 1 part per 100,000; medium 3 parts per 100,000; doubtful, 4 parts per 100,000; impure above 4 parts per 100,000"; but for other than upland surface waters his standard is half the above figures—viz., ·05, 1·5, 2

A 1-per-cent. infusion of hay macerated in distilled water at ordinary temperature—an example of a very badly polluted water—absorbed no less than 12 12 parts of oxygen per 100,000, showing that the process is one of extreme delicacy when dealing with vegetable contamination; while a 1-per-cent. solution of fresh urine absorbed only 1·732 part per 10,000 in the same time.

Many of these waters would, from their behaviour towards permanganate, be judged organically pure, but would most certainly be condemned if judged by their yield of albuminoid ammonia. As a rule, no one constituent is sufficient to base a judgment upon, but all data should be carefully weighed, and what is perhaps as important as anything is that the history of the water should be known.

It is not possible by water analysis alone, without the aid of a bacteriological examination, to state positively that harm would accrue by drinking water from a contaminated supply. The analysis simply points out the absence or presence of organic matter, and does not show whether the contamination is due to healthy excreta or to excreta containing the germs of typhoid or cholera, but if the water is free from organic matter those specific organisms would not be likely to be present.

GLASGOW WEST OF SCOTLAND PHARMACEUTICAL ASSOCIATION.

The Social Committee of this Association, with Mr. Arthur McKellar (the successor to Mr Alexander Kinninmont) as Convenor, have arranged a series of six evenings during the coming winter. The first of the series came off on Friday, October 18, in the Philosophical Society's Hall, Glasgow, when Mr. W. L. Howie gave his popular lecture on "The Scottish Alps." Mr. W. L. Currie, President, was in the chair, and the hall was crowded with members and their lady-friends, and Mr. Howie's racy and interesting lecture was much enjoyed. Mr. Howie warned amateurs against mountaineering in Scotland in July, when the mountain tops were enveloped in mists. The best time of the year is from February to June. The lecture was illustrated by 140 views from photographs, most of which had been taken by Mr. Howie.

The next social evening will be held on November 14, at the Cockburn Hotel, when the President and officers will be at home to all the members.

LIVERPOOL PHARMACEUTICAL STUDENTS' SOCIETY.

The winter session of this Society was inaugurated by a very successful "smoker" on October 17 at the Alexandra Hotel. The new President, Mr. W. S. Wokes, presided. Mr. Berry gave songs of the "coster type," and his efforts provoked the greatest merriment. Mr. James gave several banjo solos, Mr. R. H. Mitchell sang the "Skipper of St. Ives" and "We all Love Jack," Mr. Mercer's rendering of Mendelssohn's "Songs without Words" provoked an encore, and a similar compliment was paid to Mr. Paul Wareing's singing of "The Old Garden." Mr Pierson sang "My Old Dutch" and "The Bugler," Mr. Rotherham "The Sailor's Grave," and Mr. Jones the "Land of the Harp," their efforts being much enjoyed.

BRIGHTON JUNIOR ASSOCIATION OF PHARMACY.

At the meeting of this association held on October 16 "short papers" were read. The first was by Mr. Barrett on "Classification of Plants," in which the system of Linnæus and particulars of his history were principally dealt with. De Candolle, Tournefort, Aristotle, Theophrastus, Pliny, and Dioscorides and their methods of classification were also referred to. The second paper was by Mr. Kent on "Paraffin." A description was given of its production from the shale, the distillation and subsequent processes being described, and a sketch of its history from the date of its discovery in this country in 1694. The annual dinner was announced to take place on Friday, November 8, at the Café Royal, East Street. It is hoped that Mr. Martindale will be present.

MIDLAND PHARMACEUTICAL ASSOCIATION.

The opening meeting of the session in connection with the Midland Pharmaceutical Association was held on Tuesday evening at the Grand Hotel, Colmore Row, and was attended by a large number of pharmacists and ladies from various parts of the Midlands. The proceedings took the form of a conversazione, and after the visitors had been received by the President (Mr. R. Darton Gibbs) an excellent programme of music was performed. The artists were Mr. W. H. Henley, Mr. Hamlyn Crimp, Mr. H. Wymark Stratton, Mrs. Walter Scott, Mr. C. Hands, Mrs. Lake Millar, Miss Richardson, Mr. T. Collins, Mr. C. Moles, Mr. Anderson, and Mr. T. Jenkins.

SUNDERLAND CHEMISTS' ASSOCIATION.

The annual meeting of this association was held at the Grand Hotel on October 22, the President, Mr. T. Harrison, in the chair. Fourteen members were present. The secretary, Mr. R. H. Bell, read his report, which was very satisfactory, and showed that there was a good feeling among the members. The treasurer's report also showed a prosperous condition. The vice-president (Mr. Williamson), treasurer (Mr. Leadbitter), and secretary were all re-elected. The council were all re-elected, except that Mr. Nasber succeeded Mr. White. Messrs. Robinson and Nicholson were elected auditors. After business the evening was spent in a social manner. The annual dinner was fixed for Wednesday, December 11.

Marriages.

Backhouse—Weston.—On October 7, at Rath Cottage, Dundalk (by special licence), by the Rev. Joseph G. Rainsford, D.D., Henry C. Backhouse, of Messrs. Henry Backhouse & Co., wholesale druggists, Dundalk, to Georgina' Lovell, second daughter of Albert Weston, of Rath Cottage Dundalk.

Coats—Pinkerton.—At 13 Annandale Street, Edinburgh on October 17, by the Rev. George Matheson, D.D., St. Bernard's, John Thomson Coats, pharmaceutical chemist, Edinburgh and Leith, to Mary Hamilton, elder daughter of the late Mr. William Pinkerton, wholesale druggist, Edinburgh.

Ingram—André.—On October 15, in London (by licence), Fred. Ingram, chemist, to Victorine Juliette Leonie, eldest daughter of Jules André, captain of infantry, Nancy, France

Watson—Brackenbury.—On October 17, at St. Lawrence's Church, Bardney, by the Rev. J. Collinson Watson, M.A., cousin of the bridegroom, assisted by the Rev. J. A. Chalmers, M.A., Frederick Percy Watson, pharmaceutical chemist, Bailgate, Lincoln, to Edith Emma, elder daughter of Elijah Brackenbury, Bardney.

Wilkinson—Malleson.—On September 10 last, at Hampton Parish Church, by the Rev. Leonard Wilkinson, vicar of Westbury-on-Severn, brother of the bridegroom, assisted by the Rev. T. Milner, Charles Edward Wilkinson, chemist, Hemel Hempstead, second son of the late Rev. J. B Wilkinson, vicar of Ditton Priors, Shropshire, to Rose, third daughter of Mrs. Malleson and the late Mr. F. Malleson, of Hampton Court.

Deaths.

Chislett.—At Bloomgate House, Lanark, on October 17 Stanislaus Gerard, infant son of C. Chislett, chemist.

Fischer.—Dr. Hermann Fischer, the senior of the homœopathic medical men in Berlin, has just died in that city. The deceased was originally a teacher, and entered upon his medical studies somewhat late in life. He devoted himself chiefly to anatomical researches, but afterwards began practice as an homœopath and gradually acquired an extremely large circle of patients, especially among members of the aristocracy.

Gray.—At 22 Buccleuch Street, Edinburgh, on October 16, John Gray, only son of the late James Gray, chemist, Coupar Angus.

Mangnall.—On October 21, Walter Mangnall, chemist and druggist, of the Manningham Pharmacy, Bradford Aged 46.

GOLD MEDALS 1884-1885-1886-1888.

"SANITAS" TRADE MARK.

DISINFECTANTS

HOW TO DISINFECT.

A New and Valuable Book. Prepared at great expense, and giving simple directions "HOW TO DISINFECT" in cases of the various Infectious Diseases, and also in everyday life, will be sent Post Free on application to

THE SANITAS CO., Ltd., Bethnal Green, London,

or to THE AMERICAN SANITAS CO., 636 West 55th St., New York,

Sole Manufacturers of the famous

"SANITAS" DISINFECTANTS AND APPLIANCES.

Showrooms: 29 Queen Victoria Street, E.C.

ELLIS'S TABLE WATERS.

"UNSURPASSED FOR EXCELLENCE."

Manufactured entirely from an "ABSOLUTELY PURE" and INEXHAUSTIBLE "CRYSTAL SPRING," situated on the premises, and exclusively the private property of the Firm at Ruthin.

R. ELLIS & SON, RUTHIN, N. WALES.

TOMLINSON & CO.'S

BUTTER POWDER,

MILK PRESERVATIVE,

&c.

ESTABLISHED 1842.

Only Address—MINT ST., LINCOLN.

Stocked by all Wholesale Houses.

SCOTT'S EMULSION.

The Cream of Cod Liver Oil

WITH

Hypophosphites of Lime & Soda,

Has been accepted and prescribed by physicians in **all parts of the world** for the past twenty years, and considered by them **the** preparation of

COD LIVER OIL PAR EXCELLENCE.

SCOTT & BOWNE, Ltd.,
47 Farringdon Street, E.C.

G. S. MUMFORD

FARRINGDON ROAD, LONDON, E.C.

THE BEST THAT CAN BE PRODUCED.

PURE CRUSHED LINSEED	18/-	1 cwt. carriage paid; *or* 7, 14, ✠ 28, & 56 lbs. free on rail Lond
BEST CLEANED LINSEED (For Tea)	17/-	1 cwt. carriage paid; *or* 7, 14, ✠ 28, & 56 lbs. free on rail Lond.
PURE STARCH POWDER	23/-	1 cwt. carriage paid; *or* 7, 14, ✠ 28, & 56 lbs. free on rail Lond.
PURE FULLER'S EARTH (Light Colour)	16/-	1 cwt. carriage paid; *or* 7, 14, ✠ 28, & 56 lbs. free on rail Lond
PURE FULLER'S EARTH (Fine)	14/-	1 cwt. carriage paid; *or* 7, 14, ✠ 28, & 56 lbs. free on rail Lond.

✠ CARRIAGE PAID to Railway Stations within 200 miles of London (or allowance made for distances beyond) on a total weight of 112 lbs. and upwards of above articles

G. S. MUMFORD,

FARRINGDON ROAD, LONDON, E.C.

THE BEST THAT CAN BE PRODUCED.

No. 1 Finest Light Pure PRECIPITATED CHALK.	cwt. 27/-	1 cwt. carriage paid; *or* 7, 14, ✠ 28, & 56 lbs. free on rail Lond.
PURE PRECIPITATED CHALK.	23/-	1 cwt. carriage paid; *or* 7, 14, ✠ 28, & 56 lbs. free on rail Lond.
PURE "WHITE EARTH." Specially prepared and purified for Toilet purposes.	19/-	1 cwt. carriage paid; *or* 7, 14, ✠ 28, & 56 lbs. free on rail Lond.
PURE LIQUORICE JUICE.	1/- lb.	Carriage paid when included ✠ in orders of 112 lbs. & upwards.

✠ CARRIAGE PAID to Railway Stations within 200 miles of London (an allowance made for distances beyond) on total weight of 112 lbs and upwards.

MÖLLER'S HYDROXYL-FREE OIL.

A New Method of Manufacturing Cod-liver Oil.

The Primitive Process dates back to the Palæolithic age of Northern Europe, and its *modus operandi* was to keep the livers till they became putrid and the oil, &c., exuded from them.

The Steam Process, which we introduced in 1853, revolutionised the manufacture, and its product—the colourless oil—has since occupied the place of the old brown oils.

The New Process now being introduced is the second important advance in the system of manufacture, and its product—the hydroxyl-free oil—is as essentially different from steam-prepared oil as that was from the brown oil.

Full particulars, prices, &c., on application to—

PETER MÖLLER,

LONDON OFFICES— 43 SNOW HILL, E.C.

Vibrona

"An excellent Wine."—*The Lancet.*

"I have used VIBRONA myself in convalescence from a recent illness, and am therefore able personally to bear witness to its valuable Tonic properties."—

.....*M.D., M.B.*

SOLE PROPRIETORS

FLETCHER, FLETCHER & Co. Holloway LONDON

Editorial Comments.

ANALYSTS AND MEDICINES.

SOME recent prosecutions under the Sale of Food and Drugs Act show that chemists and druggists have still something to learn in regard to the defence of such actions. This was particularly notable in the sweet-spirit-of-nitre case which

we reported last week, and in which a conviction was the last thing that need have been expected. As a rule, it is not advisable for chemists and druggists to undertake the defence in court of actions brought against them, for they have not that knowledge of court procedure, and, consequently, readiness of retort, which a lawyer possesses; but in a certain class of cases the chemist must provide his lawyer with the material for the defence, and this practically amounts to formulating the defence. There are three articles which stand by themselves as targets for analysts to shoot at, and as analysts are fallible there is too frequently an opportunity for the chemist and druggist to air his pharmaceutical jurisprudence. These articles are sweet spirit of nitre, milk of sulphur, and mercurial ointment, the last-mentioned having but recently been added to the list of analytical targets. It should be observed, in the first place, that it is the difference between what the public demand and the official standards which is the cause of trouble as to these articles. Were it not for that, there would not, in all probability, be two qualities of articles, and therefore no adulteration proceedings. This is the first point to be noted in defending any action dealing with the sale by retail of sweet spirit of nitre and milk of sulphur, and from that point the defence should be directed to show the Magistrates what the public want when they demand these articles, and how the Pharmacopœia representatives differ from them. Fortunately, there are Court decisions in regard to these medicines, which magistrates who come to the subject for the first time will in all likelihood accept for their guidance.

In regard to "sweet spirit of nitre," it has been proved by eminent authorities that spirit of nitrous ether of the British Pharmacopœia differs from it in odour, appearance, and strength, and for these reasons the public will not accept it. What they wish is the old London Pharmacopœia preparation—spiritus ætheris nitrici—which is prepared by a different method, affording a spirit having a specific gravity of 0·850, and a much smaller percentage of ethyl nitrite. This preparation, and this only, is "sweet spirit of nitre." It should not be sold for spirit of nitrous ether, and it is illegal to use it in compounding prescriptions. The Malling case, reported last week, has several points of interest. First, the spirit sold was s.g. 0·897, therefore it was not sweet spirit of nitre. Second, Mr. Anning admitted that sweet spirit of nitre should contain "2 per cent. of nitre" [ethyl nitrite]; there he was wrong. Spirit of nitrous ether contains between 2 and 3 per cent. of ethyl nitrite, but spt. ætheris nitrici (·850) contains between 0 3 and 1 per cent. Third, Mr. Adams said he had known sweet spirit of nitre for over forty years, and it ought to contain, he said, "2 per cent. of nitre." Here Mr. Adams showed that he was not well posted, for a radical change was effected by the introduction of Redwood's formula in 1867, and an accurate method for assaying the spirit was not known until twelve years ago. If all these facts are kept in mind when sweet spirit of nitre has been asked for and supplied, with the result of a prosecution under the Sale of Food and Drugs Act, there should be little difficulty in making the facts clear to the Magistrate. But the latter's mind must be disabused at once of the idea that the spirit is in the British Pharmacopœia. It is only when analysts rest upon that that their side wins. The chemist and druggist should always remember that when "spirit of nitrous ether" is asked for the B.P. preparation should be given.

This confusion between B.P. and P.L. names is generally a cause of trouble. Even retail chemists themselves have not yet learnt that a change effected in a preparation by the General Medical Council does not necessarily mean that the public must swallow the new physic; indeed, they refuse to take spirit of nitrous ether because it is too strong, and precipitated sulphur for milk of sulphur because they cannot get the new kind to mix with water. Moreover, there is no reason why the milk of sulphur that the public like should not be sold as such, for it has been decided by several judges that "lac sulphuris or milk of sulphur" is not sulphur precipitatum B.P., but the old preparation containing sulphate of lime. The reason why the public prefer it lies in the presence of the sulphate of lime, which enables the powder to mix much more readily with water than the more scientific compound which we owe to the advance of chemical knowledge. Discrimination between the thing asked for and the thing given must always be carefully attended to. This also applies to mercurial ointment, to which analysts are directing attention, probably in ignorance of the fact that 99 per cent of the ointment sold in small quantities is for a specific purpose—viz., for the destruction of *pediculi pubes*. If the official ointment were given for this purpose, there would be a constant epidemic of salivation; in fact, such cases are occasionally met with as a consequence of conscientious druggists giving the official ointment. Formerly, the London Pharmacopœia had an ointment (mild blue ointment) to meet the case, and it is really this preparation which continues to be sold. The demand for the stronger preparation is only by prescription (rarely), and for dressing sheep.] Why the food-inspectors should have turned their attention to this particular preparation we do not know; but we believe they are doing the worst possible service to the suffering poor, for recent actions may compel retailers to sell only the official ointment, and the harm that that will do we have sufficiently indicated.

THE COMING SACCHARIN LAWSUIT.

It is now nearly eight months ago since Messrs. Gilliard, P. Monnet & Cartier, a prominent Lyons firm of chemical-manufacturers, announced that they were prepared, through their agents, Messrs. R. W. Greeff & Co, to take orders for saccharin from British firms. By this statement the French house threw down the gauntlet to Messrs. Wilson, Salamon & Co. (Limited), who are the proprietors of the British patents for the manufacture of saccharin of "500" strength, and whose goods are made by the original saccharin-manufacturers, Messrs. Fahlberg, List & Co., of Germany. As the supremacy of that house had never before been challenged in this country, the French firm's proceedings naturally caused a great deal of interest, the more so as, since its introduction into commerce, saccharin has become to all intents and purposes an article of absolute pharmaceutical necessity.

It will be remembered that Messrs. Wilson, Salamon & Co. were interviewed by our representative at the time (*C. & D.*, March 16, 1895, page 381) in order to obtain some information as to the steps they intended to take against the intruder. The firm were naturally extremely reticent as to their position, but they strongly declared their determination to fight for what they believed to be their monopoly-right. Time passed on, and nothing more was heard about the matter, indeed many people interested in the business may have begun to assume that nothing further would be heard of it—in other words, that some "understanding" had been arrived at. No idea of the kind, however, appears to have been entertained by the English house. The legal mills grind slowly—perhaps it would be too much to say that they always grind exceeding small—and a lawsuit which may prove more expensive than, and will certainly equal in interest,

the famous Lanolin case, is not an undertaking to be entered upon light-heartedly. Now, however, Messrs. Wilson, Salamon & Co. have mounted their batteries, manned their guns, and fired the first shot in the shape of a "caution" signed by their legal advisers. The full text of this document, as well as that of the counter-circular issued by Messrs. R. W. Greeff & Co.'s solicitors, will be found in our advertisement-pages.

We understand that Messrs. Wilson, Salamon & Co. intend to fight the battle to the bitter end, and that, in case they should not be successful, they will enter into a price-cutting contest with all comers, which may be continued, as such fights usually are, until some of the combatants have struck rock-bottom and must retire, or until an understanding comes to be established. That, however, is looking very far ahead. For the present the plaintiffs may, of course, apply for an interim injunction restraining the defendants from selling or offering their saccharin pending the trial. It should be noticed, too, that the plaintiffs threaten, if successful in their suit, to proceed against all persons who, after October 19, have purchased from Messrs. Greeff & Co. saccharin made according to the Patents 2,278 (1891) and 21,417 (1893), on which the action will be fought. The plaintiffs point out that they have introduced and popularised saccharin in the British dominions at the expense of many thousands of pounds, and they claim that they ought in equity to be allowed to reap the fruit of those endeavours. It is interesting to note that nothing is said in the circulars about saccharin of 1 : 300 strength, which was the article originally introduced, and which, we believe, has only recently been superseded by the more intense sweetener. It also deserves attention that the action will be fought on two patents granted to the plaintiffs in 1891 and 1893 respectively, and not on the original saccharin patents, which were taken out several years earlier.

The result of the case will be watched with interest, not only by the numerous consumers of saccharin in the British dominions, but also by various rival saccharin-manufacturers abroad, who would, no doubt, gladly enter British markets if they were assured they could safely do so.

BUSINESS-RELATIONS WITH CHINA.

In our issues of September 28 and October 12 we called attention to various efforts made by Britishers, Frenchmen, and Germans to extend their commercial relations with China. A further contribution to this important question has since reached us from Blackburn, one of the great Lancashire cotton centres, in the shape of a "Report upon the Question of Sending out a Commercial Mission to China," prepared for the Blackburn Chamber of Commerce by Mr. H. F. Hibbert. The report is a useful one so far as it goes, but it does little beyond recapitulating, on the strength of a lot of consular reports, the well-known tales of alleged European supineness in venturing upon trade-extension, and of British want of pliability in the matter of trying to please customers. If the Blackburn Chamber of Commerce, as an official body, should listen to Mr. Hibbert's suggestions and despatch a special representative to "open up" China for the benefit of the world in general and of Blackburn in particular, we have every fear that the result will be a disappointment, be the emissary never so honest and zealous, or even, as suggested, "officially accredited to the Chinese Government." It is all nonsense to talk about opening up foreign countries by means of semi-official missions. Such excursions generally result in a good time for the delegates, who are made much of where they go, eat and drink of the best, deliver many eloquent speeches, return to write long reports, and, if they know how to pull the strings, end by receiving a decoration. Diplomacy, we admit, may occasionally be useful in bringing about a reduction of Customs duties, or otherwise securing trade advantages for the country at large; and in the particular case of China diplomatic pressure might be very advantageously brought to bear to secure the removal of the vexatious "Likin" or Inland Revenue duties and private "squeezes" to which merchandise is subjected all along the road to its destination after it has paid the Customs duty, which, according to the spirit of our treaties, should be the only tax levied upon foreign imports. Such action, however, must be taken through the proper diplomatic channels; to expect any useful result in this direction from a private travelling-company would be as foolish as to suppose that serious international complications could be removed by sending a Lord Mayor to taste wines at Bordeaux.

The trade with China, as with most other distant countries, is almost entirely in the hands of a few large firms, who, with offices in London or Hamburg, and branches at the various treaty ports, supply the Chinese with everything—from pickles to gunboats—and in return introduce Chinese produce in Europe. There are also a few houses, including three or four large drug-firms, who monopolise special trades, but it is absurd to suggest that such firms are not fully alive to the needs and capacities of the Chinese markets, or that they will allow a single order to escape if they can help it. Possibly—even probably—a few firms not competing with each other may derive profit from the despatch to China of a trustworthy man of technical and business knowledge in the capacity of a private traveller. But the "commissioner" sent out by a corporation such as a Chamber of Commerce would be pretty sure either to be no specialist, or, if he should happen to be one, to take care that the results of his investigations shall receive the widest possible publicity, in which case people who have paid nothing towards the commissioner's expenses are likely to obtain as much benefit from the Mission as that gentleman's own paymasters. Meanwhile, there is no doubt that China is but a meagre customer for British goods, considering the extent of her territory and the hugeness of her population. Australia buys from this country 4*l.* of goods per year per head of her population, the United States 6*s.* worth, British India 2*s.* worth, Japan 1*s.* 9*d.* worth, and China only 3¾*d.* worth.

DRUG-TRADE CRICKET CLUBS.

A desire has been expressed to us that we should endeavour to bring together representatives of the cricket clubs connected with the London drug and drug-sundries houses, with the object that the matches to be played next year shall be so arranged that it may be possible to ascertain the champion club, and to place all in the position to which their achievements may entitle them. It is obvious that such an arrangement would much increase the interest of the cricket contests of the season; and if secretaries of the clubs concerned will write to us on the subject, we will endeavour to put those favourable to the idea into communication with each other.

EVEN GUERNSEY.

A specially effective argument in favour of pharmacy legislation has been discovered. The *Manx Sun* of Douglas, in an editorial note on the subject, points out that the principle has been adopted by every civilised country in the world, and that "even Guernsey—which, it is almost needless to point out, cannot compare in any sense whatever with the Isle of Man—even Guernsey is ahead of us in this matter." The *Sun* states, as we have stated already, that "a proportion" [according to our information a majority] "of Manx chemists favour the adoption by the insular Legisla-

tnre of the Pharmacy Act of Great Britain of 1868; the creation by law of the Pharmaceutical Society of Great Britain as the power under which the Manx Act should be enforced, and the placing of unregistered chemists in business in the island at the time of the passing of the Act on the same footing as that on which the chemists of Great Britain were placed at the time of the passing of the Act of 1868."

OPIUM IN CAMPHOR.

Mr. James Payn, in his "Town and Table Talk," shows a wide knowledge of a good mauy things, bnt his lore seems to have got beaten out rather thin when he gets to pharmacy. Commenting on Mr. Pollock's address on "Idiosyncrasies in Medicine," at the opening of St. George's Medical School, he selects as an instance the specimen which he snpposes Mr. Pollock to have given that "camphor is a simple thing enongh, but it might have a very serious effect on some people because of the very slight amount of opium it contains." Mr. Payn draws from this example the moral of the desirability of stickiug to one doctor. We may add another, which is the prudence of quoting exactly, especially when the subject is an nnfamiliar one.

DRUGS FOR COOLIES IN CEYLON.

Mr. J. L. Vauderstraaten, M.D., Acting Principal Civil Medical Officer for Ceylon, has issued a memorandum for the information of planters concerning the issue of drugs in bulk for the use of estate labonrers in the planting districts. The memorandum states that all scheduled estates are entitled to receive drngs in bulk, either from the outdoor dispensary or from the Civil Medical Store, Colombo, on cash payment, while orders below 5 rupees in valne can be filled at the outdoor dispensaries. When any drug is ordered from the dispensary which is not in stock at the time, the medical officer is authorised to obtain this drng, if possible, in the market, and charge the estate with its market price. In applying for drugs from out-door dispensaries, estate superintendents are nrged to nse the official form, "Estate Order Memo.," which will be supplied to them free of charge. Prescriptions componnded for the use of estate labourers are supplied free, snch as influenza mixtures, no matter in what qnantities such mixtures are required. Drugs in bulk, irrespective of value, are supplied to estates from the Civil Medical Store at cost price. A memo. of cost will be forwarded with the drugs, and the recipient can remit the amount by cheque. Estate superintendents should give full directions how the parcels are to be forwarded; carriage must be paid by them. No form need be used in ordering drugs from the Civil Medical Store. If this is not "rank Socialism" of the spnrious kind—the kind which benefits one portion of the community only (namely, the planters) at theexpense of another (namely, the pharmacists)—we do not know what is.

"THE WOMAN WHO WOULDN'T."

The gaiety of nations would distinctly be increased if all the ladies who write "sex-novels" were to follow the example of "Lucas Cleeve," the writer of "The Woman who Wouldn't," and occasionally give us a plain, if unpremeditated, insight into their knowledge of the anatomy of the human body. We have, indeed, no positive proof that the pseudonym "Lucas Cleeve" hides a woman, but as, in the preface to the book, the writer defines the attitude he or she intends to take up in any controversy that may arise out of the work by saying: "If anyone contradicts me, I will contradict him agai'n," the circumstantial evidence of feminine authorship is almost overwhelming. Opalia, the heroine, after swearing she would ne'er consent through 200 pages of conflicting emotions so violent that they would certainly have killed any ordinary female, consents in the last chapter, after discovering that "the real sacrifice of woman is having children, etc." Fortunately, the book ends with the child. We are spared the mysterious "etcetera," and we bid a relieved adieu to the heroine as she nurses her firstborn. It is not, however, Opalia's opinions so much as her corporeal peculiarities that fill us with admiration. Opalia's father had been "a great professor," her mother "a sensible woman," while, as for herself, she "threw back to some past ancestor, and a romantic grandmother, the mother of the professor. All this and much reading were the vaccine with which she was inoculated." A woman who has been inoculated with her own grandmother ought to be capable of anything, and we are therefore not surprised to read that, when Opalia quarrels with her lover, "tears of blood seemed to flow to and from the back of her throat to her heart, and then upwards, but none came to her eyes." Similar scenes occur daily, until the lover is almost driven to distraction. Igsplain it, Men and Hangels! this new theory of the circulation of the blood. We can only snggest that the authoress, after studying psychology at Girton, completed her education by following a course of physiological lectures by one of those itinerant pill-selling professors who are in the habit of exponuding the action of their remedies by the aid of a coloured diagram of the human frame.

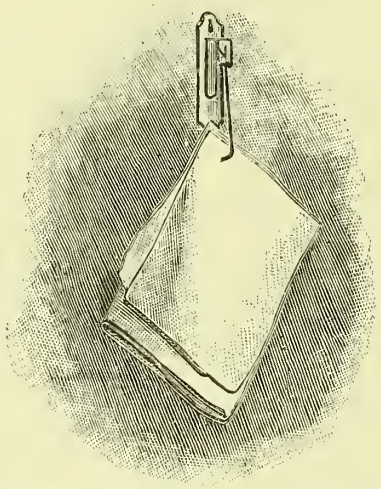
NEWFOUNDLAND COD-LIVER OIL.

Mr. W. A. Munn, who, we have reason to believe, is interested in the cod-liver oil industry of Newfoundland supplies an interesting account of the present condition of that trade. In July Mr. Munn went round on a visit of inspection to the Newfouudland oil-factories, of which the largest are situated at the headlands of Conception Bay, near Baccalieu Island. "Baccalieu" is evidently a French corruption of the Spanish "bacalao," codfish, and indicates the antiquity of the fame of Newfoundland as a cod-producing region. Steam-refining on the Norwegian system has lately been introduced in Newfoundland, and at Baccalieu, according to Mr. Munn, a boiler will rnn two or four hot-water-jacketed metal pans holding about 80 gallons of livers. In Norway, it is said, livers can be treated in two-and-a-half to three hours, but at Baccalieu fully eight hours are required for the same process. Mr. Mnun continues:—"I watched the numerous boats arriving with loads of cod (some fish weighing 50 lbs), almost all laden to the 'gunnel.' The fish were most plentiful right off the shore, and the nets were handled twice a day." As soon as the fish are landed the jelly-like, cream-coloured livers are removed and taken to the oilworks, the body is salted, and the entrails and part of the bone thrown into the sea. The yield of oil varies according to the season; sometimes 20, often 35, gallons of the refined oil are obtained from the 80 gallons of livers. The residue is placed in bags for pressing, and produces the tanners' cod-oil. Although the oil-factory works night and day throughout the busy seasou, more livers are often brought ashore than can be coped with immediately. In this case the livers in excess are placed in barrels and allowed to putrify in the sun, yielding a dark-brown oil which is also used for tanning. According to Mr. Munn the Newfoundlanders are taking up their old and decayed cod-liver-oil trade with renewed energy, and hope, before long, to regain the business that has, of late years, been "usurped" by the Norwegians.

A Sharp Practice has recently been carried on in Paris to the detriment of doctors by a yonng man, who is described as of about 25 years of age. The system followed is to deliver a bottle of "Vin de Chassaing" at the residence of a medical man, who, of course, is always stated to have ordered it—and to obtain payment, a receipt being given when asked for. The servants of a number of doctors have been taken in by this method. Messrs. Chassaing & Co, the makers of the wine, are naturally much annoyed by this trick, though the doctors at least get a good pharmaceutical preparation for their money.

Novelties.

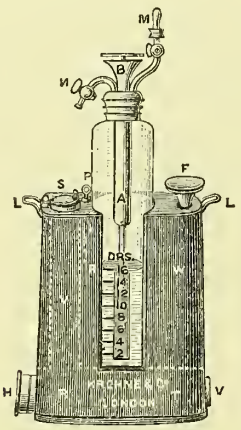
Messrs. W. B. Fordham & Sons (Limited), of York Road, King's Cross, N., send us a sample of the "Key-Yan" paper-holder (Knight's patent), which we illustrate below.



The holder consists of a brass body about 3 inches long, to which a hook is loosely fixed. The hook is closed by placing it into a slit, where it is so firmly gripped that there is practically no danger that it will come undone. The holder can easily accommodate 500 sheets of paper, and retails at $4\frac{1}{2}d$, with a trade discount of $33\frac{1}{3}$ per cent.

A NEW ETHER-INHALER.

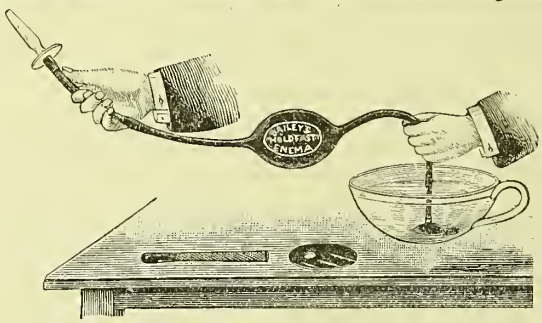
Messrs. Krohne & Sesemann, 8 Duke Street, Manchester Square, W., have recently, in conjunction with Dr. R. W. Carter, constructed a new ether-inhaler, in which the essential principles of their well-known chloroform-inhaler are incorporated. It will be remembered that the chloroform-inhaler was devised for ensuring (1) a regular supply of fresh air charged with chloroform-vapour; (2) measurement of



the chloroform used; and (3) an index of the patient's respiration. The ether-inhaler incorporates all these principles, and it is only in its construction that it is different. In the first place, the ether is vaporised by means of a jacket of hot water (100° F.), into which the ether-bottle is placed, this temperature being maintained in the case of long or successive operations, by placing in the hot-water jacket a Japanese muff-warmer or tinder-box, which is heated by a stick of charcoal. This gives a regular supply of heat without any risk whatever of igniting the ether-vapour. In using the apparatus it is observed that the patient does not breathe the same air and ether over again, while the loss of anæsthetic is constant, the result being that the patient passes into a condition of complete anæsthesia without that laryngeal irritation, struggling, and perspiration which generally accompany the administration of ether. The average consumption of ether is about ʒss. per minute, and as much as $3\frac{1}{4}$ oz. have been given in the course of an operation lasting sixty-three minutes without producing sickness or any other undesirable symptoms.

BAILEY'S HOLDFAST ENEMA.

The enema shown in the illustration below, and which has been lately introduced by Messrs. W. H. Bailey & Son 38 Oxford Street, London, W., presents a notable advantage in use by the provision, at the end of the tube which is placed



in the solution to be injected, of an indiarubber sucker, which can instantly be attached to the bottom of the basin, to which it adheres firmly. The fluid is drawn up through an opening in the tube just above the sucker. The result of the attachment is that the tube remains quite steady in the basin. The occasional slipping out and the constant rattling of the intake tube on the sides of the vessel are completely obviated. The enemas are seamless, and have no metallic fittings.

VINWOOL.

Mr. Vincent Wood, St. Andrew Street, E.C, sends us samples of a new woollen fabric which he is using for the manufacture of chest and lung protectors, belts, knee-caps, &c., having obtained from the manufacturers the sole rights to use it for that purpose. He calls it "Vinwool," for there is a charming consistency about the names which Mr. Wood adopts for his specialities. "Vinwool" is made white and natural grey, and is a thick and fleecy material which reminds one in softness and warmth of high-class Witney blanket. We can imagine that it will make-up very prettily into chest-protectors, and that they should sell well wherever shown.

HOUSEHOLD CLINICAL THERMOMETERS.

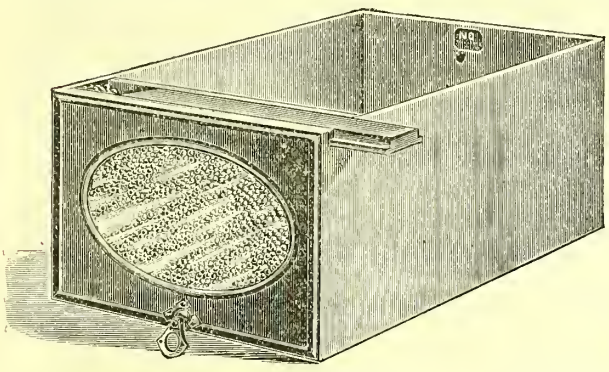
In view of the rapidly growing adoption of clinical thermometers as a medical indicator, and in order to encourage its use in households, Messrs. Ayrton & Saunders have produced these with markings which shall be simpler to read

than those generally employed by medical men. The scale given is more open than is usual, and an explanation of the physiological meaning of the different temperatures is indicated on the scale. "Normal," for instance, is marked between 98 and 99, "too high" between 99 and 101, "fever"

between 101 and 103, and so on. These thermometers are supplied in metallic cases, and may be had with or without a magnified index. They are supplied to the trade on cards, each carrying six thermometers.

NEW CHEMISTS' DRAWERS.

A new style of drawer for chemists' shops has been patented by the Commercial Novelties Company, of 10 Bolt Court, E.C. An oval glazed space occupies a large part of the front of the drawer, and a narrow enclosed space allows of a sample of the contents of the drawer to be shown. This exhibition



of the drug itself, instead of or in addition to a label, would produce a very striking effect if spread over the whole back of a chemist's shop, the variety of drugs which could thus be displayed giving opportunities for a range of colour and character which could not fail to interest customers. We understand that the company do not propose to undertake the manufacture of the drawers, but they wish to license the regular shop-fitting houses on payment of a small royalty.

BRONNLEY'S SOAPS.

Messrs. H. Bronnley & Co., of Danbury Street, Islington, who make a speciality of manufacturing soaps for chemists, bearing the name of the vendors, show us specimens of their most recent products. We note that they include a number of the best pharmacists among their clients, and it must be stated that the quality of the soap and the style in which they turn it out are such as to do credit to the most fashionable business. Some of the styles in which they put up soaps are novel, and exceedingly elegant. Their manufactures include shaving and tooth soaps, as well as the ordinary tablets.

Bankruptcy Reports.

Re G. Smith Palmer, 4 Corrance Road, Brixton, Chemist's Manager.

The creditors under this failure met last Monday at the London Bankruptcy Court, before Mr. G. W. Chapman, Assistant Receiver, and left the case in his hands to be wound up in the ordinary course of bankruptcy. The debts, which are chiefly for money lent, are returned at 339*l.* 2*s.* 4*d.*, and there are no assets. Previous to 1885 the debtor carried on business at Brixton as a chemist and druggist, but he then paid a composition of 1*s.* 6*d.* in the pound on liabilities amounting to 1,116*l.* He attributes his present failure to liabilities incurred as surety for others, to law costs, to interest on borrowed money, and to his income having been insufficient to cover expenditure. The public examination of the debtor is appointed for November 8.

Re Henry Blakey, Lincoln, Malt-food Manufacturer.

The adjourned public examination of this debtor was held at the Lincoln Bankruptcy Court on Tuesday last. Debtor was questioned at considerable length by a creditor who had advanced him money with which to carry on the business. Debtor denied having told the creditor that he was solvent when the money was advanced. He alleged that the creditor did not ask him if he was solvent or not. The examination was ordered to be closed.

Re Benjamin Shakerley, Penzance, Chemist and Druggist.

In this recent failure, in which the liabilities amount to 903*l.* 12*s.* 11*d.* gross, of which 824*l.* is expected to rank for dividend, and assets 271*l.*, the creditors are :—

	£	*s.*	*d.*
Chemists' Association (Limited), London	16	0	9
Colenso & Son, R., Penzance	15	3	1
Dugdale, J. F., Penzance	10	5	0
Evans, Gadd & Co., Exeter	56	3	4
Evans, Lescher & Co., London	31	3	5
Luget Bros., Exeter	10	0	0
Maw, Son & Thompson, London	19	0	0
Sutton & Co., London	23	18	5
Thompson & Sons, London	10	0	0
Trounson, F., Penzance	50	0	0
Partly Secured.			
Shakerley, J. G. S., Camborne	452	9	0

Re Mary Ann Hillock, 146 Southampton Row, W.C., trading as the Medical Electrode Company.

This bankrupt's examination was concluded at the London Bankruptcy Court on Wednesday upon accounts showing liabilities 1,521*l.* 6*s.* 2*d.*, and no assets.

Under examination the bankrupt stated the circumstances, summarised in our report last week (page 589). The outstanding liabilities, she said, were entirely for advertisements, most of which were contracted without her knowledge. The failure was due, first, to pressure by creditors, who harassed her continually in the presence of customers, and thus damaged the trading, and to the coincidence of the Harness case being before the Court. Directly that case was published in the daily press, the public thought that the Medical Electrode Company was associated with the Medical Battery Company, the result being that a complete stoppage was experienced. No books of accounts had been kept at any time. The witness admitted that she had been insolvent since 1891, but that she had continued to trade, in the hope of building up a good business. This was her first failure.

In reply to Mr. Wood, who appeared for a creditor, the bankrupt stated that orders for advertisements were booked simply because the canvassers insisted upon having them. Her partner had given orders without her authority, although the documents bore her signature, the fact being that she had signed blank orders and her partner had filled them up.

Ultimately Mr. Wood said it was useless to pursue the subject, as his instructions were entirely at variance with the bankrupt's evidence, but he hoped that the matter would receive full consideration when the bankrupt applied for her order of discharge.

A Clean Shave.—According to the *El Restaurador Farmaceutico* (Barcelona) it is proposed to impose upon hairdressers and barbers the duty of seeing that all their instruments, brushes, &c., are sterilised after being used. This is already done in Nordhausen (Saxony), but it is suggested that, as all dermatologists and hygienists recognise that many of the diseases of the skin arise through the medium of the barbers' instruments, the obligation should become general. To this end it is sought that a law should enforce the disinfection of the instruments which may have been used, either by being immersed in a solution of acid carbolic or corrosive sublimate, while the scissors and razors are to be heated to a point, after each operation, which would kill any germs likely to be found on them.

C

Legal Reports.

PROSECUTIONS UNDER THE PHARMACY ACT.

In Scotland.

At the Dundee Sheriff Court on October 16, James Stewart, assistant to William Low & Co., grocers, 115 Overgate, was charged under the 15th section of the Pharmacy Act, and at the instance of Mr. Bremridge, Registrar to the Pharmaceutical Society, with having sold a quantity of opium, which formed an ingredient in a quantity of Powell's balsam of aniseed, without having a chemist's certificate. He pleaded not guilty. Sheriff Campbell Smith took exception to the complaint on the ground that the quantity sold was not stated.

Mr. J. M. Hendry, who prosecuted on behalf of the Pharmaceutical Society, said if the article was poison then the boy must have a chemist's certificate before he could sell it.

The Sheriff: There is prussic acid in the seeds of apples, but in order to poison a man it would require a ton of apples. The question here is between a poisonous dose and a tincture that would do no harm to anybody.

Mr. Hendry: The Act stipulates that no one shall be allowed to sell any drug containing poison without having a certificate.

The Sheriff: What is this stuff?

Mr. Wilkie (who represented accused): Cough-mixture.

The Sheriff: If a man gets two or three drops of laudanum and a glass of brandy to cure some trifling complaint is that selling poison?

Mr. Hendry: Certainly, under the Act.

The Sheriff: Would the sale of a poppy in a flower shop be a sale of poison under the Act? Must it not be made clear in some way that the poison sold was a sufficient dose to be poisonous?

Mr. Hendry: I do not think so. If there is a sale of poison that is sufficient.

The Sheriff: Every poppy sold is a poison; it contains opium.

Mr. Hendry: It is not sold as a drug. This was sold as a drug. It was sold in a grocer's shop without a licence.

The Sheriff: Every glass of whisky contains poison. I am not going to sustain a charge which is ridiculous. You must make it appear in the complaint that there was sufficient opium to be dangerous. The purpose of the Act is to protect people against the sale of poisons by persons who know nothing about them in such a way as to be dangerous to human life. But it is not enough to say it is a poison. I shall not convict any one of selling poison if it is in such quantities that could not possibly do any harm. I shall continue the case for a week to allow Mr. Hendry to communicate with his principal.

When the hearing was resumed on October 23 Mr. Wilkie, who appeared for the accused, said before his Lordship asked for any amendment of the complaint he would like to say he was instructed by his client to tender a plea of guilty. He would be prepared to argue strongly against the complaint, but as a matter of expediency he tendered a plea of guilty. He had no principle to fight for. It was purely an accident. He did not wish to sell poisons in any quantity, and he was not going to make a question of it. He therefore asked his Lordship to accept the plea, and he would have something to say in mitigation of the penalty.

The Sheriff: I must have some reasonable ground to hold this a relevant complaint. I am not going to convict a man of wearing red hair or anything of that kind unless I see some point of law in it.

Mr. Wilkie: I tender the plea.

The Sheriff: It is the duty of the Court to protect the public.

Mr. T. B. Morison (who now appeared for the prosecution): The Pharmaceutical Society consider the case is of some importance, and I understand it has been represented to your Lordship that the Society had been taking this proceeding oppressively, and I wish to give any statement of that kind a disclaimer.

The Sheriff: What I represented was simply that, seeing there was opium, and that there was opium in a certain article sold, if that is to be relevant it would be sufficient for the prosecution of any girl who sold a poppy, and if a mere ingredient of poison was sufficient, it would involve every publican and grocer in the city.

Mr. Morison: I think the poppy is a very good illustration, and I am prepared to meet that case; but what I say is that this complaint charges the respondent with selling a quantity of opium in a mixture, and it is also said in the complaint, relevantly enough, that that was a sale of poison. The question comes whether it is necessary on a question of relevancy to state the exact amount.

The Sheriff: No, not the exact quantity; but whether it is a dangerous amount.

Mr. Morison: What is dangerous to one person may not be dangerous to another. I have witnesses who will be able to state that the article sold is dangerous, and, in certain cases, if the whole of it were taken would cause death. I say that it is not necessary in a question of relevancy. All that is necessary is to say that he sold a poison, and I must prove that he sold it; and if he proves that it was an infinitesimally small quantity, then your Lordship would apply the maxim of "De minimis non curat lex."

The Sheriff: Is an infinitesimally small portion still a poison?

Mr. Morison: No doubt it is a poison, but the principle *de minimis* does not proceed on the fact that it will not be a poison. In the case of the poppy the answer would be that, first, poppies were not scheduled poison under the Act, and he understood the poppy contained no opium and no chloroform, but that these had to be generated by chemical process from the plant.

The Sheriff: It is an ingredient.

Mr. Morison: No, my Lord, it is not, and does not become an ingredient until this chemical process has taken place. Therefore, in the Act preparations of poppies, syrup of poppies, and tincture of poppies were scheduled as poisons, although the natural poppy contained no poison whatever. The poppy illustration, therefore, gave a very good illustration of what the Act hit at.

The Sheriff: If the poppy does not contain poison, where does the poison come from?

Mr. Morison: The poison comes from the chemical action.

The Sheriff: Poison can never come from chemical action unless there is something to act upon.

Mr. Morison: In the case of the poppy, the plant in its natural state, with the bloom upon it, is absolutely harmless. That is the condition in which it is sold in fruiterers' shops. The opium is got by wounding the capsule. As a matter of fact, however, this does not affect the relevancy of the complaint. It is not a scheduled poison.

The Sheriff: You say opium is a poison within the meaning of the Act, but that does not say that balsam of aniseed is poison.

Mr. Morison: He is not charged with selling balsam; he is charged with selling opium.

The Sheriff: What quantity of opium was there in what he sold?

Mr. Morison: I am prepared to bring evidence on that point. Mr. Morison then quoted an English case similar in nature to the present prosecution, and, in reply to the Sheriff, said the quantity of opium involved in that case was the same as in this—namely, 1 gr. He also produced a bottle of the balsam similar to that in question, and which bore the inscription, "This preparation, as made since 1824, contains amongst other valuable pectoral ingredients a very minute and harmless quantity of opium," and the label "Poison." The complaint charged the respondent with selling a quantity of opium. He submitted that that established a relevant complaint, and it was nothing to the point to say that poison might be developed in certain natural products. It would be as absurd to say that a person sold whisky because he sold malt. The two cases were exactly analogous—whisky being developed from malt and opium from the poppy.

The Sheriff said whisky was developed from malt by undergoing a process of fermentation. That was a process of chemical action. There was no such process in extracting opium from the poppy.

Mr. Morison said his information on that point was different, and his Lordship would have an opportunity of examining witnesses upon that point.

The Sheriff: I know something about chemistry.

Mr. Morison moved that respondent be allowed to plead to the indictment.

The Sheriff said he would allow the defendant's plea, but he thought it right to say that, in his opinion, this was an irrelevant complaint, and he said so on the ground that to say there was an ingredient of poison in an article without saying if that ingredient of poison was in such a quantity as to be dangerous to health or life was irrelevant. In the English case it was proved that there was sufficient morphia in the bottle to be dangerous to the life of a child. If a case of the same kind came before him again, he would require to have it proved that the quantity of poison was such that might have done injury to health. He understood the purpose of this legislation was to protect the health of the community and the life of the lieges, and not to constitute a monopoly in favour of any Society. His reason for saying, and for holding most decidedly, that to say there is poison in an article was not sufficient in itself, was that there were in Great Britain articles sold by grocers and others that contained poison. Whisky contained alcohol, a very strong poison (laughter); nitre, which was sold by every grocer, was a very active poison; even common salt, if taken in large quantities, was poison. He believed further that from lucifer matches it was possible to get enough poison to poison anybody. (Laughter.) Some wall-papers contained arsenic, and some cosmetics as well. (Laughter.) Were all these to form a hunting-ground for this Society—(laughter)—to go about levying fines on people who sold them? There was certainly more poison sold in the form of whisky than any other of which he knew. He held a very strong view in regard to the law; he held a very strong view on the system of any profession being allowed to levy fines on the public for offences that could do no injury to the public.

Mr. Morison said the Privy Council compelled the Pharmaceutical Society to take these proceedings. So far from desiring to levy fines, he would like to explain that the prosecutions were carried on at a loss to the Society, which had to account to the Privy Council for all the fines they got. He moved for a penalty and also for the expenses of the prosecution.

Mr. Wilkie said the offence was purely of a technical character. The bottle was sold entirely by accident. Until three years ago grocers were in the habit of selling patent medicines whether they contained poisons or not. It was conceived at that time that there was no offence in selling poison merely as the ingredient of a patent medicine. There was a prosecution, however, two years ago, and that settled the law. Since then accused's employers had recalled all the medicines containing poison. The fact of the bottle being left was the result of an oversight. The inspector of the Society called at the shop, asked the lad to supply the bottle, and the lad, knowing no better, did so.

Mr. Morison said there was no doubt the bottle was pointed out to the lad.

The Sheriff: Trapped the lad.

Mr. Morison: I was wrong in saying that the bottle was pointed out to the assistant. It was pointed out by the lad, and then asked for.

Mr. Wilkie: The bottle would never have been sold unless the Inspector had asked for it.

The Sheriff said this was a plea of guilty of a technical offence. He had great difficulty in seeing in what the offence consisted, but he must assume that it consisted in something. The lad sold a bottle of stuff to a man who asked for it, and he was prosecuted for doing so. His Lordship confessed he was utterly unable to understand what good this prosecution would do to the Society, and what interest any Society superintending a branch of the trade in the country could have in maintaining and insisting on a prosecution like this. There might have been cause for passing legislation and for insisting on prosecutions of this kind, but articles with a slight tincture of poison were as a rule so harmless that the Act might be worked in a way to cause far more oppression than any good it might do. Looking at the whole circumstances of the case, he thought justice would he met on both sides by imposing a fine of 1*s.*, and modified expenses of 1*l.* 1*s.*

Before Sheriff Robertson, at Forfar, on October 17, William Finlayson, grocer, 12 High Street, Port, Montrose, and Mary Helen Davidson, grocer, 28 Wharf Street, Montrose, were charged with having between May 1 and June 30 contravened the Pharmacy Acts by having, without being duly registered pharmaceutical chemists, or chemists and druggists, kept open their shops for the retailing, dispensing, or compounding of poisons. The indictment set forth that between the dates specified they sold patent medicines, component parts of which were poison. They pleaded guilty. Mr. Yule, solicitor, Montrose, appeared for defendants, and stated that they had no knowledge of the ingredients of the medicines, and he asked his Lordship to be as lenient as possible. Mr. Alex. Freeman, Forfar, who appeared on behalf of the prosecutor, the Registrar under the Pharmacy Act, stated that, in the case of Mr. Finlayson, he sold a bottle which was distinctly labelled "Poison"; and, he added, both defendants had been warned by Mr. Davison, the local secretary of the Pharmaceutical Society, against selling the medicines. The Act did not sanction imprisonment for an offence, but he thought a warning should be given others by the imposition of substantial fines in these cases. The Sheriff fined each of the parties 10*s.*, with expenses of 1*l.* 1*s.* each.

At Nottingham.

At the Nottingham County Court on October 21, before his Honour Judge Masterman, D.C.L., the Pharmaceutical Society of Great Britain sued James S. Webster, assistant to Mr. Lord, 14 Glasshouse Street, Nottingham, for a penalty of 5*l.* for infringement of the Pharmacy Act. Mr. T. R. Grey appeared for the Society, and the defendant was not legally represented, nor was he in court during the hearing of the case.

Mr. Grey stated that the premises No. 14 Glasshouse Street were described as a "Medical Hall," and were to all intents and purposes a chemist's shop. A witness went into the shop and asked for oxalic acid, which was supplied to him by the defendant in this case. He also asked for some glycerine, which was likewise supplied at the same time. There was a red label marked "Poison! beware! oxalic acid!" but there was no name or address of any chemist. The bottle of glycerine bore a label with the name of J. G. Clarke, chemist, and the address, but it appeared that Mr. Clarke died in 1893, and there is now no such person on the register. The place at which these purchases were made was one of four large shops which apparently belonged to Mr. Lord, who is on the register under this Act. The shops are at Radford Road, Upper Parliament Street, St. James's Street, and Glasshouse Street. It was impossible for Mr. Lord to be in all the four shops, and if he did not actually infringe the Act in a case of this sort by putting unqualified men into the shops, the unqualified men themselves were liable. Moreover, there was no address of the chemist, that was Mr. Lord, on the packet which would be put before his Honour, and this was necessary under section 17 of the Act. In conclusion, counsel quoted cases.

Arthur Foulds, private inquiry agent, residing at Southwark, deposed that he went recently to Nottingham on the instruction of the Pharmaceutical Society. He purchased the oxalic acid and the glycerine produced at 14 Glasshouse Street. He put the date on the label.

Harry Moon, clerk to the Registrar of the Pharmaceutical Society, deposed that he received the bottle of glycerine and the oxalic acid now produced from the last witness. He locked them up in a drawer, and retained the key until he handed the bottle and packet over to the analyst.

Ernest John Eastes, analyst, and Fellow of the Institute of Chemistry, deposed that he had had considerable experience in analysing. He received the packet of oxalic acid from the last witness, and analysed the contents, which he found to be oxalic acid.

His Honour said he could not add anything to the strength and importance of the observations of Mr. Justice Hawkins, which had been read to him. He should find for the plaintiffs for the full penalty of 5*l.*, with costs.

Subsequently Webster came into court, and explained that he had been waiting upstairs, not knowing where the case was being heard. He asked that he might be allowed to pay the penalty at 10*s.* per month.

His Honour said it was a very serious offence that he had been guilty of.

Mr. Grey, after consultation, said he was instructed that instalments had been previously accepted, and he had no objection in this case.

His Honour said he would make an order for instalments at 10*s.* per month, and he hoped it would be a warning to defendant.

PATENT-MEDICINE CASES.

James Creighton, grocer, of North Road, Ambleside, was charged at the Ambleside Petty Sessions on October 16 with exposing for sale a certain patent medecine liable to stamp-duty without having obtained a licence. Mr. Williams, supervisor of the Inland Revenue, conducted the prosecution, and said that on August 20 Mr. Creighton sold a box of Beecham's pills to an Excise officer, and when asked if he had a licence, said he had, but could not put his hand upon it. In a letter of explanation which he afterwards wrote to the officer, he pleaded ignorance of the necessity for a licence for Beecham's pills. Mr. Williams said there were good grounds for believing that the defendant had for some years sold patent medicines without a licence. He would ask the Bench to inflict a substantial penalty. The case having been proved, Mr. Gatey, who appeared for the defendant, said when it was necessary for the representatives of the prosecution to go so far back as they had to show that persons selling patent medicines without a licence were liable, it was not surprising that many, like his client, were in ignorance of the necessity for a licence; and although ignorance of the law was said to be no excuse, at the same time it was an excuse to the extent that it was a very serious element in the amount of penalty to be inflicted, and he hoped in this case it would be nominal. A fine of 1*l.* was imposed.

Charge of Using Mutilated Medicine Stamps.

At a special sitting of the Northampton Borough Magistrates, on Tuesday, Mr. Evan Charles Ashford, wholesale and retail chemist, at several addresses in the town, was brought up in custody, charged under section 13, sub-sections 5 and 9 of the Stamp Duties Act of 1891, with mutilating an Inland Revenue stamp with the intent that use should be made of a part of such stamp. He was further charged with feloniously and without lawful excuse having in his possession on October 21, 1895, a certain stamp which had been fraudulently mutilated.

Mr. A. J. Llewhelyn, detective-supervisor, her Majesty's Inland Revenue, Somerset House, who prosecuted, said he represented the Crown, and was prepared to support the charge, and then ask for a remand. He then entered the witness-box, and deposed that he was the detective-supervisor of her Majesty's Inland Revenue, at Somerset House. In consequence of instructions received from the Solicitors' Department, he visited certain premises in London, and came to Northampton on the previous day. He visited the premises of Mr. Ashford, Gold Street, Northampton, chemist, and asked what explanation he could give concerning one box of Simcoe's tongue-powders, purchased by an officer of the Revenue at Barclay's, London. He pointed out at the same time that the stamp had been cut in two.

At this point Mr. Ashford asked for an adjournment until the arrival of his solicitor (Mr. Becke).

Mr. Norman pointed out that they had already waited some time, and

The Assistant Clerk informed the prisoner that he would suffer no injustice from the examination being taken. The evidence would be furnished to his solicitor.

Mr. Llewhelyn, continuing his evidence, said he then pointed out another case of Simcoe's powders purchased at Harrod's Stores, Brompton Road.

Mr. Becke arrived at this juncture, and asked that only sufficient evidence might be offered for a remand.

Mr. Llewhelyn said that was what he was asking. Again continuing his evidence, he deposed that he then pointed out to prisoner another package of nitrovare voice-lozenges, purchased at Mr. Smith's, chemist, Market Street, Wellingborough, by an Inland Revenue officer. This was similarly a half stamp cut and pasted over as the others. He told Mr. Ashford there were several other cases, but that he had not others with him at present.

Witness was proceeding to refer to what prisoner said in reply, when Mr. Becke interposed.

In reply to the Assistant Clerk, witness said Mr. Ashford subsequently made an admission to him. The case was one in which he was obliged to ask for substantial bail if their Worships chose to let him out at all. The penalties were heavy.

Mr. Becke said it was not the time for penalties, as he had not been convicted yet. He formally applied for bail, pointing out that prisoner was well known in the town.

The Bench remanded the prisoner until Tuesday next, granting bail, himself in 400*l.*, and two sureties of 200*l.* each. Subsequently, four sureties of 100*l.* each were accepted in the persons of Mr. T. L. Wright, Mr. R. L. Capell, Mr. J. Jeffery, and Mr. J. Allman.

CARMEN'S I.O.U.'S: "AN ABOMINABLE WAY TO CARRY ON BUSINESS."

At Shoreditch County Court on October 22, Batey & Co. (Limited), mineral-water manufacturers, Kingsland Road, sued Edward Smith, a carman lately in their service, for 5*l.* 5*s.*, balance of an account.

Mr. Robinson, who appeared for plaintiffs, said this action was of considerable importance to mineral-water manufacturers. They employed a number of carmen at 10*s.* a week and commission. These men left goods with shopkeepers, and were supposed to be paid cash. Very often the men let the shopkeepers have the goods on credit, and the firm so far recognised this that they either stopped the amount out of the men's wages or else got them to sign an I O.U. It was on these I.O.U.'s that the present defendant was now sued.

Judge French: Where are the I.O U.'s?

Mr. Robinson: There is but one here for 1*l.* My clients have not brought down the others.

The Judge: Then where is your evidence?

Mr. Robinson: I have the plaintiffs' books and a detailed account, which I now put in.

Judge French: How can you? You know that that is not evidence.

Mr. Robinson: I know that. I only hand it in to assist your Honour in coming to a judgment.

The Judge: Assist me, Sir, as much as you like, but in a legal manner. (Laughter.) What does defendant say?

Defendant: I have paid the money. These I.O.U.'s are as old as can be. See, here are my wages-sheets for the last year, made out by them. They have stopped 7*s.*, 10*s*, 15*s.* every week.

Mr. Robinson: But he still owes something. They are on account.

Judge French: You do not say so. They should be marked on account. To the Defendant: Did they let you give credit?

Defendant: Yes. There are a lot of cases and bottles out now for which I have paid, and the firm will have the money.

Judge French: Now this man has left, how is he to collect the accounts that he has paid you?

Mr. Robinson: He knows where they are. He can go and get the money.

Judge French: Nonsense. They will pay Batey & Co., and not a discharged carman. It is an abominable way to carry on business. They say they don't give credit, they encourage these carmen to give credit, and seek to make these poor men insure them against bad debts. Judgment for defendant, and I allow him 5*s.* for his morning's expenses.

SALE OF FOOD AND DRUGS ACT.

Spent Ginger.

Mr. John Lawrence, of Dale Street, Wednesbury, was summoned at the Petty Sessions on October 16 for selling ginger containing 30 per cent. of spent ginger. While Mr. F. W. Taylor, county analyst, certified that the sample contained 30 per cent. of spent ginger, Mr. Remington, analyst to the Borough of Middlesborough, certified the drug to be pure. The case was adjourned for an independent analysis at Somerset House.

Linseed-meal.

At the Belfast Summons Court, on Tuesday last, David McMaster, inspector under the Food and Drugs Act, charged David Stewart, druggist and grocer, with selling linseed-meal adulterated with 25 per cent. of farinaceous food. Mr. A. J. Lewis prosecuted, and Mr. David McGonigal represented the defendant. The inspector bought 1 lb. of linseed-meal from an assistant in defendant's shop on September 18. Professor Hodges, the city analyst, certified that the meal contained 25 per cent. farinaceous food. Cross-examined by Mr. McGonigal: He was aware that linseed-meal was used extensively for feeding cattle. Mr. McGonigal submitted that there was no case on the evidence. The Chairman: Are you in a position to produce any evidence showing that this meal was what was known in the trade as linseed-meal? Mr. McGonigal: I will produce the defendant, who will swear that he never knew of anything else as linseed-meal in the trade. The defendant was then examined, and said that he was a druggist and grocer. In his trade there was an article known as linseed-meal, and it was that article that he sold. The Chairman: What do you know of linseed-meal? Witness said if pure linseed was wanted crushed linseed would have to be asked for. What they sold was known as linseed-meal, and had been bought as such. Mr. Lewis: Did you sell it for feeding cattle or for poultices? Witness: I don't know. It was my assistant who sold it. Cross-examination continued: He knew that one of the essential ingredients of linseed was a form of opium, but he did not know that when a person asked for linseed-meal he should get that stuff mixed with farinaceous matter fit for food. The complainant, recalled, said he paid 2*d.* per lb. for the meal. In other shops, when he asked for linseed-meal, he got pure crushed meal at 3*d.* Ultimately Mr. Lewis intimated that he would withdraw the case.

Business Changes.

Messrs. Butler & Crispe, patent-medicine dealers, have removed from Charterhouse Buildings to larger premises at 82 Clerkenwell Road, E.C.

Mr. Umpleby, of Redcar, has sold his business to Messrs. C. A. Sharp and C. J. Allen, who will carry on the business under the name of Sharp & Allen.

Mr. Edwin Williams, pharmaceutical chemist, 189 Wovertree Road, Liverpool, late senior assistant to Mr. F. Billington, has commenced business on his own account at this address.

Mr. P. G. Edwards, pharmaceutical chemist, from Mottershead's, Manchester, has purchased the business at 66 High Street, Rhyl, heretofore carried on by Mr. A. H. Williams, pharmaceutical chemist.

Messrs. Holman, Ham & Co., chemists, have opened a branch establishment at the corner of Sidwell Street and Tiverton Road, Exeter. The premises have been newly fitted, and every convenience for carrying on a large trade is provided.

New Books.

Eder, Jos. Maria. *Jahrbuch für Photographie und Reproductionstechnik* 1895. Ninth annual publication. 8 marks. (Wm. Knapp, Halle a/S.)

Meyer, Lothar (Editor). *Doebereiner, J. W.* (1829), *und Max Pettenkofer* (1850). *Die Anfänge des natürlichen Systems der chemischen Elemente* Abhandlungen. Nebst einer geschichtlichen Uebersicht der Weiterentwickelung der Lehre von den Triaden der Elemente. (Ostwald's "Klassiker" series, No. 66.) 8vo. Pp. 34. Bound. 0·60 mark. (Springer, Berlin.)

Ostwald, W. *The Scientific Foundations of Analytical Chemistry treated in an Elementary Manner.* Translated, with the Author's sanction, by G. McGowan. Cr. 8vo. Pp. 226. 5*s.* net. (Macmillan.)

Starling, E. H. *Elements of Human Physiology.* Second edition. Crown 8vo. Pp. 454. 7*s.* 6*d.* (Churchill.)

Wright, L. *A Popular Handbook to the Microscope.* Illustrated. Crown 8vo. Pp. 256. 2*s.* 6*d.* (Religious Tract Society.)

Trade-Marks Applied for.

Any person who has good grounds of objection to the registration of any of the following marks should *at once* communicate with Sir Reader Lack, Comptroller-General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

(*From the "Trade Marks Journal," October* 16, 1895.)

"Neomal"; for chemical substances for use in medicine and pharmacy.

"Nacoma and Narubine"; for perfumery, toilet-soaps, &c. By the Lafone Company (Limited), 73 Ludgate Hill, London, manufacturing chemists. 189,630, 31, 32.

"Eracea"; for chemical substances for use in medicine and pharmacy. By H. D. Brandreth, 22 Hamilton Square, Birkenhead, patent-medicine vendor. 189,799.

"Hebe"; for chemical substances for use in medicine and pharmacy. By W. Droege, 8 Templeton Place, Earl's Court, London, drug-manufacturer. 189,817.

Device of pyramid; for glycerine for use in manufactures. By J. Crosfield & Sons, Bank Quay, Warrington, soap-makers. 190,003.

Device of giant with club; for pills for human use. By the Giant Oxie Company, 20 Willow Street, Augusta, Maine, U.S.A. 186,956.

Device of steamer shipping sponges, with monogram, &c.; for sponges. By I. & M. Cohen, 53 Houndsditch, London, E.C., sponge merchants. 189,045. The essential particular is the device.

Combination of devices, representing Chinese life; for chemical substances used in manufactures, photography, or philosophical research By A. Karbery & Co., 5 East India Avenue, London, E.C, merchants. 189,341, 2, 5.

(*From the "Trade Marks Journal," October* 23, 1895.)

"Maypole," and device of same; for all goods included in classes 1, 2, 3, 4, 47, 48, and 50. By The Maypole Soap Syndicate (Limited), 98 High Holborn, London, manufacturers. 189,078 to 189,084. The essential particulars are the device and the word "Maypole."

"Semotine"; for an embrocation for human use By Rowland Walker & Co. (Limited), 468 High Road, Chiswick, Middlesex, patent-medicine manufacturers. 186,535.

"Strornol"; for an antiseptic in Class 2. By Albin Lenhardtson, Smalandsgatan 28, Stockholm, manufacturer. 190,077.

"Binadon"; for chemical substances for use in medicine and pharmacy. By E. Hadfield, 30 Scarishrick Road, Southport, managing clerk. 189,112.

"Burhl"; for chemical substances prepared for use in medicine and pharmacy. By J. C. Williamson, 40 Smith Street, Oldham, wholesale druggist. 189,418.

"Siren"; for chemical substances prepared for use in medicine and pharmacy. By C. Simpson, The Limes, Duston Road, Northampton, soapmaker. 189,694.

"Lililene"; for medicinal preparations for human use. By M. A. Lilly, 35 Colston Street, Bristol, patent-medicine proprietor. 189,875.

Device of the ruins of Bradgate with wording on label; for extract of herbs for use in making a non-alcoholic beverage. By T. E. Butler & Son, 41 Sandy Gate, Belgrave, Leicester, chemists and druggists. The essential particular is the device. 188,867.

"Becozov"; for a liniment for human use. By B Coshcff & Co., 192 Sloane Street, London, organist. 189,998.

Customer: "What in the world is that unearthly howling overhead?" Clerk (smiling): "There is a painless dentistry establishment upstairs, sir."

The Irish Pharmaceutical Examinations.

TWO successful candidates at the last examination for the licence of the Pharmaceutical Society of Ireland have sent us an account of their experiences, from which we compile the following report:—

The examination began on Wednesday, October 9, at 10.30 A.M., and was held at the Society's house, 67 Lower Mount Street. The first day was devoted to materia medica and botany, with Dr. Montgomery, M.A., F.R.C.S., as the examiner. The paper was as follows:—

MATERIA MEDICA.

1. State the characters and tests of the ingredients contained in glycerinum plumbi subacetatis.
2. Give the definitions, characters, and tests of three organic bodies, which the B.P. directs to be tested by touching with nitric acid.
3. Mention the B.P. soaps. Give the definitions, characters, and tests of each.
4. Write out the definitions, characters, and tests of three official drugs, which the B.P. directs to be tested under the microscope.
5. Enumerate the definitions, characters, and tests of two B.P. alkaloids, which occur in the form of octahedral crystals.

BOTANY.

6. What is meant by the flower of a plant? Mention the varieties met with, and give B.P. examples.
7. Papaver somniferum. Write out a botanical description of this plant.
8. Hordeum distichon. Describe this plant. Illustrate your answer.

Contributor No. 1 writes:—"We had then two hours' respite, and 2.30 P.M. found us all gathered in a side-room awaiting the oral. My name being first on the list I was not left long in suspense, but was called into the principal room. Dr. Montgomery was seated at a table with a number of specimens before him. He handed me specimens of *Cruciferæ* (*Brassica sinapis*), *Solanaceæ* (*Hyoscyamus niger*, raceme of fruit), *Ericaceæ* (*Uva ursæ*), besides some dry specimen, which I did not know, and the reppum of 'honesty.' In materia medica I got gum arabic, characters, tests for impurities, &c.; sacred bark, characters, and distinctions from black alder; gum elemi, cassia fistula, what sort of fruit, N.O., &c.; also veratrum viride rhizome. I found he liked a decided answer and was very fond of B.P. terms."

No. 2, describing the oral in materia medica and botany, says:—"We were locked in the Council-chamber and taken one by one into the examination-room, and, after a short interview, turned out by another door. In materia medica I had to recognise tragacanth, cassia, gum acacia, ammoniacum, valerian rhizome, cantharides, sumbul, gamboge, Calabar beans, &c., and in each case give B.P. characteristics, preparations, tests, &c. In botany I had to recognise and describe larkspur, belladonna, aconite, spurge, arbutus, hyoscyamus, and give B.P. representations of the orders. I got several other specimens, which I missed, as botany was not my strong point."

On Thursday morning the chemistry paper (examiner, Mr. A. L. Doran, M.P.S.I.) was set. We append it:—

Time—Two hours and a half.

(*N.B.—Candidates are required to attempt Question* 4.)

1. Define as fully as you can—
   (*a*) Atom, and atomic weight.
   (*b*) Molecule, and molecular weight.
2. Give a short account of the following operations:—
   (*a*) Weighing.
   (*b*) Crystallising.
   (*c*) Distilling.
3. State Avogadro's hypothesis, and explain what use is made of it.
4. A gas is stored in a cylinder of two cubic feet capacity, under a pressure of ten atmospheres, at a temperature of 15° C. What volume will it occupy if allowed to expand at normal temperature (0°), and pressure (one atmosphere)?
5. Explain the chemistry of—
   (*a*) Estimation of ferrous salts by potassium permanganate.
   (*b*) Use of "ferri peroxidum hydratum" as an antidote to arsenic.
6. Write a series of equations explaining the production of the official compounds of bismuth.
7. By what reaction does the Pharmacopœia direct "acidum sulphurosum" to be prepared? State any objection to it; and give an alternative process.
8. Give some account of the production of "glycerinum" and glyceryl trinitrate ("trinitrine").
9. Starting with barley, how may ethyl alcohol be obtained, and what tests would you employ to determine its strength and purity?
10. "Acetanilidum." Describe its physical appearance, preparation, and tests.

Contrary to the usual custom, there was no oral examination in chemistry. In practical work each candidate had two salts and an alkaloid to detect, also a solution of KOH to estimate for strength per oz.

No. 1 says the time allowed was only 1¼ hour. He got thiosulphate of soda, acetate of soda, morphia, and the solution. No. 2 says:—"My salts were phosphate of soda and chloride of ammonium, and the alkaloid quinine."

The final day (Friday) was devoted to pharmacy. Examiner, Mr. Robinson. This was the paper:—

1. Mention the preparations of ipecacuanha, and state exactly how each is made.
2. State accurately how the following extracts are prepared:—
   Ext. jalapæ.
   Ext. opii.
   Ext. quassiæ.
3. What is camphor? Mention its characters and enumerate its preparations, giving the strength of each.
4. Write the formulæ of, and directions for preparing, each official mixture.
5. Under what conditions are the following sold to the public?—
   Emetic tartar.
   Oxalic acid.
   Cantharides.

After the papers were finished the candidates were taken singly to a table and shown specimens of lanoline, and asked:—Preparation? Gum-benzoin preparations? What is adeps benz.? Composition and dose of tr. benz. co.? Pil. rhei co., composition and dose? Pulv. rhei co., composition and dose? Pot. permang., dose and preparations? Also doses of tr. chlorof. et morph., tr. hyoscy., tr. bellad., liq. Fowler, liq. strychn., strychn. pur., &c., with strengths and menstruum. For dispensing, No. 1 had to make pills of pil. coloc. co., ext. hyoscy., ext. bellad., and resin. podoph., which were rather soft; also a blister for left ear, and suppositories of ext. bellad. and plumbi acet. (which he overheated and could not finish); and, lastly, a mixture of ferri ammon. cit. with ac. hydroch. dil. and aq.

No. 2 says:—"We were each handed a long slip of paper containing all the prescriptions we had to make up. Then the examiner directed us where to work. A good many of the prescriptions contained incompatibles or overdoses. After drawing the examiner's attention to these the candidate was allowed to make them up as they stood. My prescriptions were a mixture containing:—

Tinct. cauuab. ind.	ʒij.
Tinct. card. co.	ʒij.
Aquæ ad	ʒiv.

M. Ft. mist. Sig.: ℥ss. t.i.d.

"I made it, *secundum artem*, without any mucilage. The result was a beautiful mixture. The examiner asked me if I used mucilage. I also got a dozen pills containing 1 minim of creasote in each, with powdered rhubarb and powdered soap; the pills were to be silvered.

"Then I had powders of:—

Potass. nit.	ʒij.

Into eight powders.

"I weighed each powder separately. My work concluded with a belladonna-plaster 8 by 6. We got an hour and a half in which to do the work, but Mr. Robinson remarked that he would not expect any of us to take nearly so much time, and that the period we took would be considered in marking our work."

He was asked how the iron syrups were prepared, strength and ingredients, strength and dose of most of the galenical preparations. Then he had about half-a-dozen prescriptions to read, most of which were fairly legible, and he concluded with being asked a number of B.P. doses.

Both candidates speak highly of the convenience of the arrangements, and of the courtesy of the examiners; but both, curiously enough, comment on the materia medica paper as going a little beyond the subject. It may be added that there were thirteen candidates, of whom five passed and eight were rejected.

Photographic Notes.

By a Pharmaceutical Camerist.

Safety of Ruby Light.

I was annoyed on developing some of my holiday negatives to find more than traces of fog present, obtained whilst changing plates in dark-rooms away from home. Dealers who let out dark-rooms should see that their lamps give a safe light. The simplest way to test this is to cover up part of a plate with a black card and leave it exposed to the dark-lamp for two or three minutes. On development the safety or otherwise of the light will be demonstrated.

Thiocarbamide,

or thionrea, $CS(NH_2)_2$, is very popular just now as a remover of stains and fog from plates. When consulted about the defects, I find it pretty safe to recommend, as I have found it of real use. It is used with a little vegetable acid as follows:—

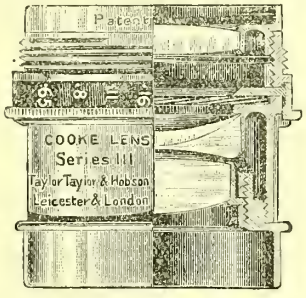
Thiocarbamide	℈v.
Citric acid	℈iiss.
Water	℥x.

Mix.

There has been quite a flutter of excitement among the members of our local photographic society over a

Cooke Lens

which a customer of mine took to the meeting the other week. The "Cooke Lens" is made by Taylor, Taylor & Hobson, 6 Southampton Street, W.C., and in simplicity of construction is a formidable rival to the Jena lenses, which have received so much attention of recent years. The



Cooke lens is not made from special glass of any kind, but owes its peculiar properties wholly to the combination. I had a specimen lens as soon as they were out, and on testing it found it quite free from astigmation, or curvature of field. Amateurs to whom I have sold these lenses express great satisfaction as a result of practical work with them.

A Public Benefactor.

The late Mr. B. J. Sayce, of Liverpool, who made the dry-plate possible, recently died, leaving his widow poorly provided for. *Photogram* states that he gave the result of his long and expensive researches freely to the world. Photographers would be wanting in common gratitude if they did not raise some tribute to his memory, and the council of the Liverpool Amateur Photographic Association has started a fund, with Mr. John Hargreaves as treasurer, for the benefit of Mrs. Sayce.

Photographs by the Mile.

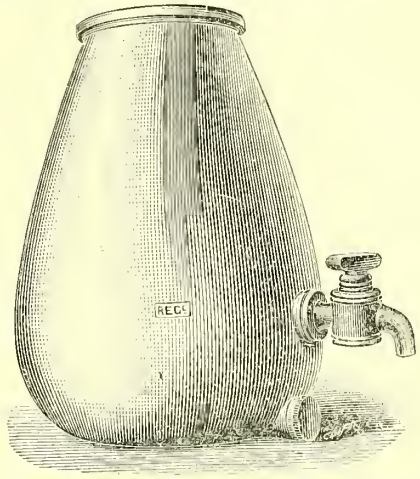
In Berlin and New York the printing of photographic pictures by machinery has been developed into an enormous industry. By sensitising the paper from the roll (as it is supplied for newspaper printing), printing it under a series of negatives, developing, fixing, washing, and drying it, as it passes automatically over a long series of rollers and through a series of baths of chemicals, it is possible to produce photographs in enormous quantities and at little cost. The principal present use is for the production of the tiny prints given away with cigarette packets and for albums of portraits of celebrities, each of which consists of a dozen cabinet portraits, accompanied by letterpress.

Double Tones

in gelatino-chloride paper which some people always obtain, are prevented by the addition of 2 grs. of sodium sulphite to 16 oz. of sulphocyanide toning-bath. The action of the sulphite is to check the toning, so that it is more perfectly under control. A short time back I saw a new

Precipitating-jar

for photographic wastes, which so took my fancy when down at Houghton's, 89 High Holborn, that I at once had a couple for use in my dark-room. The design is registered by Mr. G. Watmough Webster, F.C.S. It is made in Doulton ware, specially glazed to resist the action of photographic chemicals. A chemist will at once appreciate the advantages of



its shape and two taps. I keep one for the first print washings (a little salt is added each time), and as the precipitate settles below the top tap the clear liquid is drawn off. I have another in use for "hypo" baths; in this potassium sulphide is the precipitant, and on account of the H_2S given off, this jar is kept in the open air.

At the Royal Photographic Exhibition I noticed that of the processes used for the exhibits, platinum is an easy first, whilst next to it comes the

Carbon Process.

It has often surprised me that this process is not more used than it is. Somehow amateurs associate mystery and intricacy with this process, whereas it is one of the simplest methods of printing at present known. The whole process depends on the action of light on bichromated gelatine causing more or less insolubility of the parts acted on by light. The non-sensitive tissue, which consists of paper coated with gelatine having the necessary colour in suspension, is best bought ready made, as it is not possible to imitate on a small scale the work of special machinery employed for this purpose. I keep a variety of colours in stock, such as sepia, standard brown, engraving black, Bartolozzi red, and standard purple, which I sensitise as required for sale. The necessary quantity of tissue is cut up into the desired size and immersed for thirty seconds (in winter a little longer) in the following sensitising bath:—

Potass. bichromat.	1 oz.
Liq. ammon. fort.	℥v.
Aq. destillat.	20 oz.

The paper is then hung up to dry in either a drying cupboard or a well-ventilated dark-room. If done at night it will be dry by the morning. The exposure beneath the negative is gauged by means of an actinometer (I use Johnson's), and becomes easy with a little practice. Development is done by means of hot water, which dissolves away the soluble part of the gelatine—that unacted on by light. Fixing consists in the after-use of an alum bath to harden the film. I have not given any particulars of the "transferring" necessary; a careful study of the concise directions sent out by the Autotype Company (74 New Oxford Street, W.C.) or Elliott & Son (Barnet) will make the matter clear, and render unnecessary further particulars here.

Medical Gleanings.

Eruption from Application of Iodine.

Dr. D. R. Dobie, of Coldstream, relates a remarkable case of skin-disease which followed the application of dilute liniment of iodine (Edinburgh tincture strength) to a man of 24, who was suffering from pneumonia and renal disease. Six days after the application of the iodine the patient suffered much from an eruption of the face, which lasted four days, scabbed and healed. A similar and much more severe eruption broke out on the hands. While this eruption continued the patient took a severe rigor, and died of uræmic convulsions. Dr. Dobie does not definitely say that the iodine induced the fatal termination to the illness; but he says that eruptions from the application of iodine are rare. Nevertheless, it may be remembered that several times we have pointed out that even the tincture of iodine may cause much irritation of the skin, and we think that medical men should give greater attention to the matter, for many patients imagine that the eruption is what is wanted.

Mercury in Heart-disease

Dr. William Murray, continuing his "Rough Notes on Remedies," in the *Lancet*, mentions a case exemplifying the utility of mercury in heart-disease, in which a hard-working man of 48, who suffed from valvular disease and dilated heart, for whom "nothing more could be done," was put on 3 gr. of blue pill three times a day, a jalap purge at the end of two days, then the blue pill continued, and finally diminished to 5 gr. at bedtime. He was out in six weeks, and resumed his everyday work. During the next ten years the patient stuck to his blue pill every night with few intermissions, and declared that whenever he left it off for a few nights his heart began to trouble him, and his breathing became difficult. The *post-mortem* showed that this nightly dose in some mysterious way enabled a heart, massive with disease, to discharge its duties in such a way as to make its owner feel quite well. During the ten or eleven years of his subsequent life he took 20,000 gr. of blue pill. It never salivated him, it neither purged nor nauseated him, and it never gave his breath a touch of fetor.

Mescal Buttons.

Mescal Buttons are a drug which produces visions like those created by *Cannabis indica*, but unlike Indian hemp it causes wakefulness. Drs. D. W. Prentiss and F. P. Morgan communicate a study of it to the *Therapeutic Gazette*. *Anhalonium Lewinii*, the plant from which the buttons are derived, belongs to the natural order *Cacteæ*. It inhabits the Valley of the Rio Grande in Mexico, growing in barren and even rocky soil, and often in places which can be reached with difficulty by those who gather it. The buttons are of a brown colour, circular, about 1 inch to 1½ inch in diameter, and about ¼ inch in thickness. When chewed the button swells and rapidly becomes soft. The taste is decidedly disagreeable and nauseous, and very bitter, with a persistent after-taste. A marked sensation of stinging or tingling is produced in the fauces, which remains for a considerable time after the drug has been swallowed. Heffter isolated from the drug three alkaloids; one of them, anhalonine, $C_{12}H_{15}NO_3$, was also found by Lewin. The United States Department of Agriculture is also examining the drug. The Kiowa Indians chew the drug during a religious ceremony. We can only afford space for the description of one man's sensations after taking the drug. He was a chemist, 27 years of age. Between 9 and 11 P.M. he chewed three buttons. At 11 o'clock he retired, and before doing so noticed that on closing his eyes he could see all sorts of designs in brilliant and ever-changing colours. These visions were so pleasing that he chewed two buttons more. Then followed a train of delightful visions such as no human being ever enjoyed under normal conditions. His mind was perfectly clear and active; the power to concentrate his thoughts upon any desired subject was only slightly lessened. He could write of his sensations and experiences; stretched out upon the bed, with closed eyes, an ever-changing panorama of infinite beauty and grandeur, of infinite variety of colour and form, hurried before him. By concentrating his thoughts upon various subjects successively, the nature of the visions could be determined and considerable control exercised over the time that they remained in view. He brought up to his mind Kiralfy's "America," and it all passed before him once more. The tendency of every feature of the experience to prove a source of pleasure was quite remarkable. Efforts to fix the attention upon some subject which should give rise to unpleasant visions resulted in the appearance of myriads of horrible crawling monsters and seas of gruesome forms of human face and body which would cause the ordinarily sensitive human being to shudder. But under the influence of the mescal it merely added another item to the list of the inexpressible delights of his remarkable night's experience. Other experimenters give similar records of experience.

Trade Notes.

A diploma for gold medal has been awarded to Messrs. Burroughs, Wellcome & Co., for their pharmaceutical preparations at the Carlisle Trades Industrial and Art Exhibition. This, they inform us, is the third award they have received within the past three weeks.

Messrs. E. Marriott & Co., of Hastings, claim that the "Frog" offer is not the largest prize ever offered to chemists. In 1893 they announced an offer of 1,000 guineas—that is, they offered 11,000 dozen "Lily" baby-soothers at a special reduction of 2*s.* per dozen—and they say they faithfully kept to this offer, and never had a single communication expressing dissatisfaction.

Messrs. Hertz & Collingwood have appointed Messrs. George Curling & Co., of St. Mary Axe, to be their sole agents for the Indian Empire for their "Coca-Tonic" Champagne (Laurent-Perrier), Jerezcona Wine, the H. & C. Natural Hungarian Aperient Water, the Arsenio-Ferric Waters of Levico, and Jensen's cod-liver oil; and all orders for India will in future pass through this firm.

The Liquor Carnis Company, 28A Farringdon Street, E.C., remind us of the advent of winter trade by sending a physician's sample-case of some of their manufactures—viz., virol, marrol, malto-carnis, and Caffyn's liquor carnis. There is no doubt that the distribution of such samples as these through chemists is good for business, and our experience of the Liquor Carnis Company is that they are liberal in this respect; so if any chemists wish to know upon what terms they can get a supply, they should communicate with the company.

Messrs. G. & G. Stern, of 62 Gray's Inn Road, W.C., are now inviting the trade to take up the sale of their new speciality "Narissa," a very nourishing food for infants and invalids, and of their pumiline zalones, which are lozenges specially recommended for bronchitis and lung affections. It may be mentioned that Messrs. Stern offer, in regard to these, terms similar to those which they have so successfully introduced for pepsalia—that is to say, they offer all these articles at a price close upon the minimum at which they think they ought to be retailed—and will give a bonus to any chemist who will take a certain very moderate quantity, and at the same time sign an agreement not to sell below the minimum fixed.

The award in Hall's Coca Wine Window Competition was made by George Newnes (Limited), the proprietors of *Tit-bits*. A wine-merchant at Stowmarket gained the first prize of 20*l.*, and Mr. R. Leithead, chemist, West Hartlepool, was awarded the second prize of 10*l.* Prizes of 2*l.* 2*s.* each were also awarded to the Scottish Drug Depôt, 1 Earl Grey Street, Edinburgh; James Arnold, King's Road, Southsea; the County Trading Company, Carlisle; W. S. Blinkhorn, Salisbury; E. T. Ainley, Birkenhead; Lane & Foot, Seven Sisters' Road; H. Cooper & Co., Greek Street, Soho; F. W. Bates, Manchester; J. R. Mowatt, High Street, Cheltenham; W. T. Cooper, 66 Oxford Street, W.; E. Turner, 100 Fulham Road, S.W.; C. H. Warner & Co., 55 Fore Street, E.C.; Windle & Co., Edgware Road; Scottish Drug Depôt (Limited), 16 Nicholson Street, Edinburgh; G. T. Turner, 1 Whiteladies' Gate, Bristol; J. Taylor, Bolton. Messrs. Stephen Smith & Co., of Bow, the proprietors of this Coca-wine, have undertaken to stop undue cutting in that popular speciality. They will henceforth supply only those traders who will sign an agreement that they will not sell the article below 3*s.* or 1*s.* 9*d.*

Reviews and Literary Notes.

Rueff & Cie, of Paris, have recently published a fourth edition of Crinon's *Revue des médicaments nouveaux et de quelques médications nouvelles*. In this edition a number of new therapeutical preparations, introduced since the issue of the third edition of the book, are described, while the paragraphs relating to some of the older medicaments, including guaiacol, kola, digitaline, and creasote, have been amplified or altered in the light of later researches. The general scheme of the book has undergone no change; each article referred to being treated in turn as regards its manufacture, distinctive characteristics, physiological and therapeutical action, mode of administration, and dosage.

Professor J. Guareschi, of Turin, assisted by Professors Albertoni, Vitali, Martel, Marfori, and other authorities, is editing a commentary to the Italian Pharmacopœia under the title *Commentario della Farmacopea Italiana e dei Medicamenti in generale*. The book is in course of publication by the Unione Tipografica Editrice Farinese, of Turin, and, when completed, will occupy three big 8vo. volumes of nearly a thousand pages each. It will not be ready, however, until 1899, as it will be published in forty monthly parts, with illustrations, at 1 lira each. The book will not only deal with Pharmacopœia remedies, but with all the vulgar medicines of the country, of which there is a profusion. The first two volumes are to contain an alphabetical account of remedies from the therapeutic, chemical, and botanical points of view; the third is to be devoted to technical pharmacy, analytical chemistry, zoö-chemistry (for so they call physiological chemistry), toxicology, bacteriology, and pharmaceutical law.

The latest part of M. B. Reber's *Galerie d'éminents Thérapeutistes et Pharmacognostes* contains sketches of the careers of Professor W. A. Tichomiros, of Moscow University; Dr. P. C. Plugge, Professor of Pharmacy and Toxicology at Groningen, Holland; Professor Rudolf Boehm, of Leipzig; and Mr. Carl Hartwich, of Brunswick, a well-known German pharmacognocist. These four are the continental celebrities described, but the sketch which will most interest English-speaking chemists is that of John Uri Lloyd, senior partner in the firm of Lloyd Brothers, of Cincinnati, author of innumerable papers on pharmaceutical subjects, and Professor at the Cincinnati College of Pharmacy. Mr. J. U. Lloyd was born in 1849 at West Bloomfield, New York. All the biographies in the *Galerie* are accompanied by excellent portraits, and the completed work will form an excellent pharmaceutical dictionary of biography. Unfortunately, M. Reber, of Geneva, the editor, who is himself an ex-pharmacist, was obliged to suspend the publication of the work for a while, owing to illness; but he has lately resumed the issue with his old energy. The biographies may be had in French or German at the rate of 2.50f. per part of five sketches. Up to the present fifty representative pharmacists have been dealt with. M. Reber is catholic in his tastes, for his collection comprises, we believe, seven Britishers, three Americans, one Australian, eleven Germans, eight Austrians, four Swiss, four Dutchmen, three Frenchmen, five Russians, three Italians, and one Brazilian.

Gazette.

THE BANKRUPTCY ACTS, 1883 AND 1890.

Receiving Order

Thomas, E. H., & Co., Weedington Road, Kentish Town, N.W., mineral-water manufacturers.

Adjudications.

Johnstone, James Brotch, Kentish Town Road, N.W., chemist and druggist.

Saunders, Ernest William, Leeds, drug and patent-medicine dealer.

Smith, Harry, Horbury, Yorkshire, dealer in drugs and chemicals.

Stewart, Daniel, Halifax, veterinary surgeon.

PARTNERSHIP DISSOLVED.

Ackerley, R., and Owst, A. R., medical practitioners, Surbiton, under the style of Ackerley & Owst.

Deed of Arrangement.

Goode, Charles Edward Adams, The Park Pharmacy, Elphinstone Road, and 11 Elphinstone Road, Hastings, chemist and druggist. Trustee, Frederick W. Davis, 37 Havelock Road, Hastings, accountant. Dated, October 11; filed, October 17. Secured creditors, 242*l.* 10*s.*; liabilities unsecured, 1,075*l.* 18*s.* 5*d.*; estimated net assets, 645*l.* 4*s.* 4*d.* The following are scheduled as creditors:—

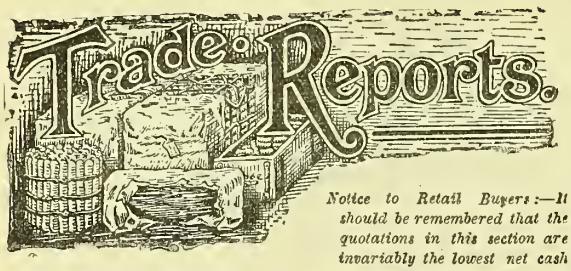
	£	s.	d.
Chemists' Association (Limited), London	37	0	0
Edwards, W., & Co., London	15	0	0
Fry, R., & Co., Hastings	17	0	0
Goode, William, Warwick	697	0	0
Hearon, Squire & Francis, London	84	0	0
Jenkinson, —, Tunbridge Wells	11	0	0
Maw, Son & Thompson, London	14	0	0
Parsons, F. J., Hastings	13	0	0
Plummer & Co., Hastings	10	0	0
Rabie, C. W., Hastings	242	0	0
Sanger & Sons, London	22	0	0
Treble & Co., London	15	0	0
Wright, Layman & Umney, London	19	0	0

When a dentist advertises teeth extracted without pain we naturally suppose that he does it just for the draw, in order to work up a *roaring* trade.

Company Pharmacy.—The county is indebted to Mr. Willis Bund, Chairman of Quarter Sessions, for his plain and forcible remarks anent evasion of the Pharmacy Act. Mistakes in the preparation of medicines are perhaps more frequent than is generally supposed, but the number must be exceedingly small when compared with the vast aggregate of prescriptions made up every day. But if the work is to be diverted from the hands of properly qualified chemists, and undertaken by anyone who hankers after the profits of the business, we may look out for sensational reports of poisoning. The law must be altered without delay to cover this most reprehensible and dangerous "trick" of the trade." —*Worcester Herald.*

The National Association of Mineral-water Manufacturers.—On October 24 the half-yearly meeting of the members of this Association was held at the Covent Garden Hotel, when Mr. Richard Johnson, J.P. (Wigan), presided over a meeting of delegates from all parts of the United Kingdom. Resolutions were adopted adverse to the military authorities entering into competition with the legitimate trade of the country in the supply of mineral waters; and, in favour of an amendment of the Merchandise Marks Act to meet the necessities of the trade. It was also decided to gather funds in order to get a special bottle law for the protection of bottles of all drinks. At the conclusion of this business the President, on behalf of the mineral-water trade of Great Britain and Ireland, presented the Secretary (Mr. William Tooke) with a substantial testimonial to the zealous manner in which he has worked for the good of the Association during the past ten years, this consisting of an illuminated address, a gold watch and chain, and a cheque for 50*l.*

Suicide of a Chemist.—On Tuesday the dead body of Mr. Joseph Thorpe, chemist and druggist, 85 Stafford Street, Walsall, was found in an outhouse. The discovery was made about 11 A.M. But a little while previously the deceased had been attending to his duties—serving customers in the shop as usual. He went out of the shop, and failed to return. A customer was waiting to be served, and as the deceased did not come back search was made for him, with the result that his dead body was found as narrated. Deceased was lying on the floor, and a small empty uncorked bottle which was found near at hand, and which it was found had contained prussic acid, was lying in the folds of his apron. Mr. Thorpe was 63 years of age, and was well-known and much respected in the neighbourhood. He had been medically attended by Dr. Maitland, who stated at the inquest that he had told Mr. Thorpe two days previously that he was suffering from dropsy. Mr. Thorpe seemed much depressed and said that his father died from that disease. The jury returned a verdict of suicide whilst temporaly insane and expressed sympathy with the family of the deceased.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable even for manufacturing purposes. Further points which should be borne in mind are that distributor generally has to bear the bulk of the freight-charges on the goods on their way from the producer to the retailer, and that for many articles the range of quality is very wide.

---

42 CANNON STREET, E.C., *October* 24

BUSINESS in the drug and chemical markets has been quieter during the week under review than it has been for some time, and one or two articles which have recently been remarkable for their advancing tendency have shown a decidedly opposite trend. In drugs the principal changes of note are higher quotations for balsam tolu and round buchu-leaves. Genuine kino realises extreme prices, there are reports of increasing rates for insect-flowers, and owners of kola nuts are disposed to require more money. Menthol quite firm. Japanese oil of peppermint has advanced very considerably. In other oils there is practically no change, with the exception of Italian oil of sweet-orange, which also is much dearer. For fine vanillas unusually high prices are obtained. Civet has sold in some quantities at high rates for fine grades, and more inquiry is springing up for balsam Peru, but ergot of rye is quite neglected. A leading brand of eucalyptus oil has been reduced in price, and some sales have been made in cod-liver oil at below market rates. Crude camphor offers at much lower prices from Japan. In chemicals there are few alterations, the chief features of interest being a momentary decline in cream of tartar and business in quinine at lower figures. Yellow prussiate of potash is very firm and tending higher, and the same may be said of sugar-of-milk, and citric and tartaric acid. Permanganate of potash, arsenic, and santonin are very firm. Soda and potash salts generally, as well as tar distillation products, are mostly unchanged. In articles allied to the drug trade we have to report a rather easier market in pepper, cloves, and pimento. Jamaica ginger of fine quality is at almost famine prices. Higher rates have been paid for Chinese and Japanese galls, and shellac is firm but quiet. Alcohol and ether are flat and dull of sale. In oils the principal alterations are as follows:—Rape oil is dearer, having advanced since last Thursday from 21*s.* 3*d.* to 21*s.* 9*d.* for crude and from 22*s.* 9*d.* to 23*s.* 3*d.* for refined. Cotton-seed oil slightly easier at 15*s.* for crude on the spot; refined remains at 17*s.* 3*d.* Ceylon cocoa-nut oil is also easier but Cochin is quoted at higher rates. Turpentine slightly lower; American on the spot 20*s.* 1½*d.* per cwt. Petroleum unaltered at 5 9/16*d.* to 6¾*d.* for American, according to brand, and from 5 5/16*d.* to 5⅝*d.* for Russian. The bank-rate remains at 2 per cent. There has been an advance in the Eastern exchanges. Bar silver is quoted to-day at 30 7/8*d.* per oz.

A Smyrna correspondent, writing on October 14, says:—The present price of scammony resin is from 18*s.* to 21*s.* per lb., f.o.b., according to quality. Very little gum, however, is now collected in Smyrna, because large quantities of root are being exported from Aleppo to other Syrian ports where the resin is extracted. In former years, when scammony resin was more used, the price for the article was more than double the present quotation, therefore our native collectors of the resin were well repaid for the pains they took in gathering the stuff. Latterly, however, finding the demand for scammony resin much diminished, and prices fallen very low, they had recourse to other means in order to reap a profit—viz., the adulteration of the resin with foreign matter, which makes it very difficult, even for experts, to guess, without chemical tests, the proportions of genuine scammony contained in the mixture. Naturally, the lower prices fell the more the article was adulterated, until now even at 17*s.* to 18*s.* one may not be able to buy scammony containing from 30 to 35 per cent. of real scammony resin. In Turkey, owing to this practice of adulteration, the dose of scammony resin for horses and other animals has been more than doubled during the last twelve or fifteen years. The scammony-plant is very difficult to find, as it grows in out-of-the-way places amongst bushes, and it is only during the spring, when the plants are in flower, that they can be easily seen and are collected. The collectors have to dig about 2 feet in order to get to the root. Incisions are then made in the root, and small shells inserted in the incisions; the shells fill up with resin in a few days. At first the resin is liquid, and it takes several months to solidify, losing about 20 to 25 per cent. of its original weight in the process. All these things taken into consideration, it does not repay the natives to hunt for scammony even at the present prices. The exportation of scammony-root from Smyrna has been prohibited by the authorities. No public announcement, however, has been made to that effect: the order for the prohibition was simply sent from Constantinople to the Custom-house officials here. Occasionally, exporters do manage to ship a few odd tons of root, but they must send men specially to collect the root for them, and have to come to an understanding with the Turkish officials in order to be able to export the goods. This causes great difficulty and expense. There is no stock of root on the Smyrna market now; the stock of resin is about 500 okes, or about 1,350 lbs. The average annual output of resin is about 2,000 okes, or 5,400 lbs.

Scammony.

The Secretary-General of the Spanish Chamber of Commerce in London intimates his readiness to draw-up and certify in the Spanish language the "certificates of origin" of British goods exported to Spain, in accordance with the new regulations issued by the Spanish Government, which will be enforced from November 1 next. To facilitate the passing of goods through the Spanish Custom-houses, copies of the Spanish Custom-house tariff in Spanish and English, with the equivalent weights and measures of the two countries, may be inspected at the office of the Spanish Chamber of Commerce, 23 to 25 Billiter Street, E.C. The form of certificate to be given by the manufacturers of goods to be shipped to Spain may also be had there.

Exports to Spain.

It is stated that Brunner, Mond & Co. (Limited) have acquired the ammonia-works of Bell Brothers (Limited) at Port Clarence, as well as a considerable area of land at the same place, for the purpose of establishing alkali-works on Tees-side. The new works, which will be commenced early next year, are in easy communication with the Great Northern Saltfield that stretches from Hartlepool to the mouth of the Tees. Up to the present the soda-ash produced at Bell Brothers' factory has been bought by Brunner, Mond & Co. The United Alkali Company have also taken up land at Port Clarence for the erection of ammonia-works for the preparation of soda-ash.

Tees side Alkali-industry.

Acid (Carbolic).—A dragging market. *Crystals* are quoted at 5½*d.* per lb. for 39°–40° C., and at 5*d.* for 34°–35° C.

Crude, 60 per cent., is held for 1*s*. 5*d*. to 1*s*. 5½*d*.; 75 per cent. for 1*s*. 8½*d*. to 1*s*. 9*d*. per gallon, and *Cresylic* 95 per cent. for 10*d*. to 1*s*. per gallon.

ACID (CITRIC).—The market is qnite firm. The price for English brands from the manufacturers is 1*s*. 3*d*. per lb. on the spot, and for forward delivery 1*s*. 3½*d*. per lb. is asked.

ACID (OXALIC). — Steady at 3⅝*d*. per lb., net terms in London.

ACID (TARTARIC).—English brands are quoted at 1*s*. 2*d*. per lb. on the spot, and at 1*s*. 2½*d*. for forward delivery. The last-named price is said to have been paid this week, and we understand that *Lawes'* brand has been sold by the mannfacturers at as high a figure as 1*s*. 2¾*d*. for forward delivery. *Foreign* brands are quoted at 1*s*. 1¾*d*. on the spot, while for forward delivery sales have been made at 1*s*. 2*d*. per lb. landed terms.

ANISE.—New *Russian* seed is offering in wholesale quantities of a few tons at a time at 22*s*. 6*d*. per cwt., c.i.f.. from Hambnrg. Old seed may be had at from 19*s*. to 20*s*. per cwt., c i.f. terms. The qnotation for *Star-anise* is 85*s*. per cwt., c.i.f. terms, for shipment.

ARSENIC.—Firmly held, at 15*l*. 10*s*. for white powder, landed terms.

BALSAM PERU.—To-day there have been several inquiries for balsam. Almost the whole of the supply of direct import is now in the hands of one holder, and 8*s*. seems to be the lowest spot price.

BALSAM TOLU.—Further sales have been made privately this week at 2*s*. per lb. for good genuine quality, and subsequently at 2*s*. 2*d*. per lb. Holders now require 2*s*. 6*d*. per lb.

BLEACHING-POWDER.—Unaltered at 7*l*. 15*s* on the spot, or 7*l*. f.o.b. Liverpool or Tyne. For shipment to the Continent, the quotation is 6*l*. 10*s*, f.o.b.

BORAX.—There is no alteration in the quotations. *Crystals* may be had at 19*s*. 6*d*, and *Powder* at 20*s*. 6*d*. per cwt.

BUCHU.—The demand for ronnd leaves continues, and a further advance of ½*d*. has been paid privately, fine green round leaves having changed hands at 6½*d*. per lb. The last two Cape steamers have not bronght any supplies.

CAFFEINE.—The market remains firm. Sales were made by second-hand holders at 20*s*. per lb., spot terms, in the course of this week. The manufacturers have booked orders for the total of their capacity up to December. Some short time ago they were still selling at 18*s*. per lb. for November delivery, bnt at that quotation no orders could probably be executed at present. For December delivery also the makers will only sell small qnantities.

CAMPHOR (CRUDE).—*Japanese* camphor for December steamer shipment is now being offered at 190*s*. per cwt., c.i f. terms. We have not heard of any business. This quotation is about 20*s*. below the recent nominal price.

CAMPHOR (REFINED).—There has been no alteration in the quotations, but the tendency has been rather easier this week.

CAUSTIC SODA (70 per cent.) is quoted in London at 7*l*. 10*s*. to 7*l*. 15*s*.; in Liverpool 7*l*. 10*s*.; 60 per cent., 1*l*. per ton less, either for spot or for delivery 1896. On the Tyne the quotation for 76 per cent. *Caustic soda* is 9*l*. 5*s*., f.o.b. *Tyne* (76 per cent.) is quoted at 67*s*. 6*d*. in bags; on rails at 70*s*. f.o.b. Liverpool.

CINCHONA.—The exports of cinchona-bark from Ceylon between January 1 and September 23 have been—in 1895, 733,288 lbs.; in 1894, 2,181,459 lbs.

CIVET.—A fair qnantity has been sold privately this week at 50*s*. per oz for fine quality, and it is doubtful whether any more of the same kind can be had at that figure. It is very difficult to form an opinion of the position of the market, but indications tend to show that prices are likely to remain high for the present.

COAL-DISTILLATION PRODUCTS. — *Sulphate of ammonia* closes quietly, at 9*l*. 2*s*. 6*d*. to 9*l*. 5*s*. in London, according to brand and terms. *Benzol* steady: 90 per cent., 1*s*. 3*d*.; 50 per cent., 1*s*. 2*d*. per gallon. *Creasote*, 1⅛*d*. to 1¼*d*.; liquid, 2¼*d*.; salts, 25*s*. *Naphtha*: Crude, 30 per cent., 6*d*.; solvent, 90 per cent., 1*s*. 1*d*. to 1*s*. 2*d*.; 95 per cent., 1*s*. 2½*d*. *Pitch*, 38*s*. to 38*s*. 6*d*., f.o.b. *Refined tar*, 11*s*. 6*d*. to 12*s*. 6*d*. per barrel; crude, 1⅞*d*. to 2*d*. per gallon. *Toluol*, 1*s*. 1½*d*.

COCA-LEAVES.—A parcel of fine *Ceylon* leaves, recently imported, is still to be had, but the owner requires the high price of 1*s*. 6*d*. per lb. for it. *Truxillo* are quoted at from 1*s*. to 1*s*. 3*d*. per lb.

COPPER (SULPHATE).—The price of good brands on the spot is 16*l*. 5*s*. per ton in London, and 16*l*. 10*s*. f.o b. Liverpool.

CREAM OF TARTAR.—There have been several changes in the quotations of this article during the last few days. A determined attempt seems to be made to break down the market, but it is extremely donbtful whether that will be successful. In the meantime, however, prices have given way to some extent, and the market closes flat and withont business. For best white *French* crystals to-day's quotation is 92*s*. per cwt., f.o.b. Bordeaux. *German* powder is still quoted by the importers at 105*s*. per cwt., but other powdered cream of tartar is offering at 101*s*. per cwt.

CUMIN-SEED.—Good new *Maltese* seed has been sold this week by private treaty at 38*s*. per cwt.

ERGOT OF RYE.—No business is doing in this article, and quotations are almost nominal.

GALLS.—Very little business can be reported in *Turkish* and *Persian* galls, but most of the importers have practically taken their supply out of the market, as they expect higher rates to prevail soon. Further considerable sales of *Japanese* galls have been made at 48*s* 6*d*, c.i.f. terms, shipment up to February, which shows a better market. *Chinese* galls are higher. Three hundred piculs January-February steamer have been sold at 53*s*. 6*d*. per cwt., c i.f. terms; and the spot quotation a couple of days ago was 58*s*. 6*d*. per cwt., but at present higher rates are asked.

GOLDEN-SEAL ROOT is tending somewhat higher, 1*s*. per lb., spot terms, being now asked for good quality.

GUM KINO.—Further sales of genuine *East Indian* gum kino have been made in the course of the last few days at the exceedingly high price of 15*s*. per lb. One holder has entirely cleared ont his stock.

INSECT-FLOWERS are reported higher in some quarters, but most of the agents say that there has been no change.

KOLA-NUTS.—Fair *West Indian* nuts sold this week by auction at 10*d*. per lb. Privately about 1*d*. advance is asked on the recent rates.

MANNA.—After several weeks of great quietness, considerable sales have been made within the last few days at the previous quotations.

METHYLATED SPIRIT offers at 1*s*. 7*d*. per gallon, packages not included, in large wholesale quantities.

MUSK is very firmly held indeed. It is said that the London stock is very small, and that nothing is coming forward. We understand that the owner of the parcel of fine thin-skinned first pile *Tonquin* pods which was sold, subject to approval, at 77*s*. 6*d*. per oz. at last auctions has refused to confirm the sale, and that nothing of this quality is obtainable at below 80*s*. per oz.

OIL (COD-LIVER).—Business was done some days ago in best non-congealing *Norwegian* at 162*s*. 6*d*. per barrel, c.i f. terms; and in second quality at 140*s*, c.i.f. We nnderstand, however, that since this low-priced parcel has been cleared out there is nothing more to be had at anything like that price, 170*s*. being now the lowest figure. *Newfoundland* oil of the best quality is quoted at from 5*s*. to 5*s*. 1½*d*. per gallon.

OILS (ESSENTIAL).—*Japanese peppermint oil* is again quoted at higher prices, but we do not hear that much business has been done. The advance asked for, however, is fully 1*s*, compared with our last report. For oil containing 40 per cent. menthol, from 7*s*. 6*d*. to 8*s*. is asked for November-December shipment c.i.f. terms, while for *Dementholised* 6*s*. 6*d*., spot, has been paid. *Cassia oil* is unaltered. *Star anise* might still be had on the spot, at 8*s*. 9*d*. per lb. A sale is reported on the spot at 9*s*. 3*d*. per lb., but this was for a single case split up among several buyers, and cannot

therefore be classed as a wholesale transaction. The quotation from China to-day is 8*s*. 9*d*. per lb., c.i.f., for prompt shipment, but 8*s* 3*d*., c.i.f., will buy from the second hand. *Eucalyptus* oil is very quiet, and we understand that the price of the *Platypus* brand has been reduced further, to 2*s*. per lb. in wholesale quantities. *American peppermint oil* is quoted at 10*s* per lb., and *Wayne county* at from 7*s*. to 7*s* 6*d*. net, London terms. English-drawn *Sandal-wood oil* is held for 12*s*. per lb., but rather lower rates might be accepted for large quantities *Italian* essences very firm. Fine *Bergamot*, 11*s*. 6*d*. to 11*s*. 9*d*. per lb, f.o.b. *Sweet orange oil* has further advanced, the quotation being now from 5*s*. 8*d*. to 6*s*. 6*d*. per lb., f.o.b., delivery to February next year.

Opium —The London market remains quiet, a small business having lately been done, chiefly in *Soft shipping* and *Persian* opium. The quotations remain as follows:—*Soft shipping*, good to fine quality, 10*s*. 6*d*. to 11*s*. 9*d*. *Smyrna*, ditto, 7*s* 9*d*. to 8*s* 9*d*. *Constantinople*, ditto, 7*s*. 3*d*. to 8*s*. 9*d*. *Druggists' seconds* (for which there is hardly any enquiry at present) from 7*s*. to 7*s* 6*d*. per lb. *Persian* opium is held at from 11*s* to 13*s* according to quantity. Heavy arrivals of the new crop of Turkey opium are expected in London shortly.

Orris.—*Florentine* remains unchanged, at 76*s*. per cwt. c.i.f., for best picked, and 72*s*. for sorts.

Potash Salts. — *Bichromate* is held at $4\frac{5}{8}$*d*. to $4\frac{3}{4}$*d*. per lb. *Yellow prussiate* very scarce, and firmly held, with a tendency towards higher prices—8*d* to $8\frac{1}{4}$*d*. per lb. is the present quotation for most brands, but one English brand still offers at $7\frac{1}{2}$*d*. per lb *Cyanide*: Firmly held at 1*s*. 4*d*. to 1*s*. 5*d*. for 98 per cent. to 100 per cent.; some of the foreign manufacturers, however, ask 1*d*. above these quotations. *Bromide of potassium*: Unaltered, at 1*s*. 8*d*. per lb *Montreal potashes*: 22*s*. 3*d*. *Pearl ashes*: 36*s*. per cwt. *British Refined saltpetre* is quoted at 21*s* 9*d*. in barrels, and 22*s*. 9*d*. in kegs; *German* at 20*s*. $7\frac{1}{2}$*d*. in barrels, and 21*s*. $4\frac{1}{2}$*d*. in kegs. *Chlorate* unchanged, at $4\frac{3}{8}$*d*. to $4\frac{1}{2}$*d* per lb., f.o.b. Liverpool. *Permanganate* remains very firm at 65*s*. per cwt. for small *Crystals* in $\frac{1}{2}$-ton lots, and 67*s*. 6*d*. for small or wholesale quantities.

Quillaia offers at 13*l*. per ton, c.i.f. terms, for prompt shipment.

Quinine tending somewhat easier. Several small sales of German bulk, *B. & S.* or *Brunswick* brands, are reported from second hands at 1*s*. $1\frac{1}{2}$*d*. per oz. A parcel of 5,000 oz. *Fabbrica Lombarda* in bulk has been sold at 1*s*. 1*d*. per oz The market closes rather dull, with sellers of the usual brands at 1*s*. $1\frac{3}{8}$*d*., but no buyers.

Saffron.—It is said that the prospects of the new crop of *Valencia* saffron are very good both as regards quality and quantity. The stock of old saffron, however, has fallen to a very low figure.

Santonin.—A small quantity may be had in second-hand at 7*s*. per lb.

Scammony.—It is said that a portion of the *Turkish* virgin scammonium which was bought in at 33*s*. per lb at the last auctions has since been sold at 32*s*. per lb., at which the remainder is still on offer. *Scammony resin* (English), 9*s*. per lb.

Senega-root is still offering cheaply on the spot at 1*s*. 3*d*. per lb. for good quality.

Shellac.—The market has been, upon the whole, rather quiet this week, but steady prices are asked on the spot. For arrival business has been done at a decline of about 1*s*. per cwt., but at the close the market, owing to a rise in the Exchange, is again firmer. At auction 662 cases were offered, of which 249 sold, partly without reserve, at an advance of about 1*s*. per cwt. on the last auction rates for second *Orange*, and a decline of about 1*s*. on *Garnet* lac; for *Button* full prices were paid. The sales were as follows:—*Second orange*, good bright cakey and blocky TN, 119*s*. to 120*s*.; ordinary flat red, 120*s*.; bright red blocky, 112*s*. to 114*s*.; flat livery, 112*s*. per cwt. *Garnet*, good curly OCC, 96*s* to 97*s*. *Button*, coloury mixed firsts, 119*s*.; ordinary to fair cakey seconds and thirds, from 108*s*. down to 100*s*. per cwt. The nominal spot quotation for AC *Garnet* is 106*s*. Sales of OCC and G brands, however, were made a few days ago at 98*s*., cash terms. For arrival business has been done at 113*s*. 6*d*., and subsequently 113*s*, c.i.f., for November–January steamer shipment, but the closing quotation is 113*s*. 6*d*.

Soda Salts. — *Bicarbonate* steady, at 7*l*. 5*s*. in kegs, landed terms. The Liverpool quotation is 6*l*. 5*s*. for casks, and 6*l*. 15*s*. for kegs. f.o.b. *Bichromate of soda* steady, at $3\frac{3}{4}$*d*. to $3\frac{7}{8}$*d*. *Hyposulphate*: Very firmly held, at 7*l*. 15*s*. in kegs, and 7*l*. in casks, on the spot. The quotation for f.o.b. Tyne is 6*l*. 10*s*. per ton. *Nitrate*: Ordinary grades on the spot are quoted at 7*l*. 17*s*. 6*d*.; *Refined* at 8*l* 5*s*. per ton. *Soda crystals* are offering at 42*s*. 6*d*. per ton, ex-ship or wharf; 47*s*. 6*d*. per ton in Liverpool, and 42*s*. 6*d*. per ton on the Tyne.

Soy.—*Chinese* continues to be very slow of sale, at 1*s* per gallon.

Spices.—*Arrowroot*: Rather quiet. At auctions only a small part of the *St. Vincent* arrowroot which was offered was disposed of, at $1\frac{3}{4}$*d*. to $1\frac{7}{8}$*d*. for fair to good, but since the sales 350 barrels of *St Vincent* have been disposed of at $1\frac{5}{8}$*d*. to $1\frac{3}{4}$*d*. per lb. *Black pepper* is a very weak market, and prices are tending lower. Fair *Singapore* has been sold on the spot at $2\frac{1}{2}$*d*. per lb., and for arrival, October-December steamer, at $2\frac{9}{16}$*d*. per lb., c.i.f. At auction sea-damaged *Singapore* realised $2\frac{3}{8}$*d*, and heavy $2\frac{1}{2}$*d* to $2\frac{5}{8}$*d*. *Aleppey* pepper sold at $2\frac{1}{4}$*d*. per lb. *White pepper* is also inactive. Small sales of *Penang* have been made on the spot at $3\frac{1}{16}$*d*., and for August-October shipment the same price has been accepted. At auctions good to fine *Singapore* realised $4\frac{1}{4}$*d*. to $4\frac{1}{2}$*d*., a small parcel of superior bold selling at $5\frac{1}{8}$*d*. per lb. *Chillies* quiet, with small sales of medium dull *Zanzibar* at 30*s*. per cwt. *Pimento* sold without reserve at barely steady prices—viz, $2\frac{1}{2}$*d*. to $2\frac{3}{4}$*d*. for medium grey to good clean. *Ginger* is firmly held for *Cochin*, and at the high prices asked there is little demand; consequently, the entire supply offered at auction, consisting of 469 bags, was bought in. Sales of good *Cassia lignea* have lately been made privately at 32*s* 6*d*. per cwt. *Cloves* dull of sale and lower. Business has been done at $2\frac{1}{16}$*d*. on the spot. Good picked *Penang* realised $8\frac{1}{2}$*d*. per lb. *Nutmegs*: *East Indian* are dull of sale; *West Indian* sold at auctions at irregular rates. *Mace* slow of sale, at 1*s*. 3*d*. to 1*s*. 6*d* for ordinary to medium *West Indian*; 1*s*. 8*d*. per lb. for medium red, partly wormy *Penang*. The available supply of *Jamaica* ginger is exceedingly small. Of fine qualities hardly anything can be had; common kinds are held over at as high a figure as 75*s*. per cwt.

Strophanthus.—The price for fair *Kombé* is still 3*s*. 9*d*. A new parcel of 6 bags of this variety was bought in at 4*s*. 6*d*. per lb. last Thursday; ordinary brown seed at from 2*s*. to 2*s*. 3*d*. per lb.

Sugar-of-milk is still scarce and tending higher, 67*s*. 6*d* per cwt. being asked for good *powder*, and 70*s* for *crystals*.

Sulphur.—Steady at 105*s*. per ton for *foreign roll*, and 107*s*. 6*d*. per ton for *Flowers* on the spot.

Tea.—The market has varied in tone considerably during the last week or ten days. At the end of last week a dull tone prevailed owing to anticipated very heavy imports from India and big sales, advertised for this week. On Monday an enormous Assam sale, lasting from noon till past six o'clock, went very irregularly for all lower grades, and at a drop in many cases of $\frac{1}{2}$*d*. per lb, while fine teas fetched full prices. Then came telegrams reducing the estimated crop by many millions of pounds, with the result in a much firmer market on Wednesday, and a recovery in terminals. It is really time these figures of estimated crops were sent over from India with more regard to facts, or people will begin to think they are only intended for market purposes. Ceylons on Tuesday showed a slight fall for teas under 9*d*. in sympathy with Monday's Assam sale.

Tonca Beans.—Very firmly held. The crop is said to be much more than last year's, but the quotations in London remain more or less nominal. According to the *N. Y. Shipping List* the Central American (?) crop of Angostura tonca beans this year has only been about 50,000 lbs., whereas the average consumption of the article, mostly by American tobacco-manufacturers, is 220,000 lbs. Occasionally the production exceeds the latter figure, the crop in one year having reached 350,000 lbs. Recently the leading tobacco manufacturers

have been quite active in the market, and it is understood that only 10,000 lbs. are left in dealers' hands. The present price is $2.25 per lb., with holders indifferent sellers. The firm position and scarcity of Angostura beans give a better outlet for the Para grade from Brazil, quoted at 25c. to 30c., and the Surinam beans from Dutch Guiana, worth 55c. to 60c. per lb. The latter have always been used to mix with Angostura. The fair supplies of Para and Surinam beans will give the general market a conservative tendency, as consumers, particularly the extract-manufacturers, may find it necessary to use all grades instead of depending upon Angostura beans. Firmer. Two packages fair small frosted *Pbaá* realised 2*s*. 4*d*. per lb.; for so-called "Angostura"s enar 4*s*. 6*d*. per lb. was suggested. The exports from Ciudad Bolivar, in Venezuela, the centre of the trade, have been:—1893: 28,567 kilos., value (Bolivares) 285,586; 1894: 85,058 kilos., value (Bolivares) 824,049.

TRAGACANTH.—The American demand, which recently caused considerable quantities to be taken out of the market, appears to have been satisfied for the present, and we can report no further sales. The market is quiet but very firm, and for fine first druggists' kinds 14*l*. 10*s*. per cwt. is required. Auctions are announced for October 25.

VANILLA.—Mail reports from Port Louis, Mauritius, dated end of September, state that the market is bare of cured vanilla. No business has been transacted during the month. It is stated that the coming crop of *Mauritius* vanilla will be no less than 60 tons smaller than the last. A considerable business has been done privately in the last few days. Fine beans are very scarce, and high prices are asked. Good *Mauritius*, 6 to 7 inches, have been sold at 28*s*. per lb. A parcel of *Australian* vanilla showing long but rather foxy shrivelled beans, which was bought in at the last auctions, has since been disposed of at 21*s*. 6*d*. per lb. *Mexican* vanilla, a variety not very often seen on our market, was bought in at the last sale at 40*s*. per lb., which, however, must be regarded as a nominal price.

WAX (JAPAN).—The quotation for October November shipment remains 27*s*. 3*d*., c.i.f. terms.

Constantinople Opium Telegram.

Our Constantinople correspondent, telegraphing on Thursday afternoon, states that heavy rains have fallen in all the growing districts, which is an excellent augury for the autumn sowings. Both druggists' and soft-shipping varieties are very weak, and the tone of the market is decidedly downwards.

The New York Drug-market.

Writing under date of October 16, our New York correspondent reports that such changes as occur in the drug-market in that city continue to be toward an upward range of prices, and during the past week many drugs have shown the effect of this upward tendency. *Opium* is steady at $1.70, the figure reached by it last week, holders finding no diminution in sales at the slight advance. *Quinine* is firm, and in fairly active jobbing demand; but, no pill-makers being in the market, no large business is being transacted. *Caffeine* is rather an uncertain quantity, the price demanded by holders varying from day to day with the position of spot stocks. *Cod-liver oil* is very stiff, at $52 to $53 for new oil. *Menthol* has advanced to $4 25. *Spermaceti* has been in active demand for export, and has been advanced to 33c. to 34c. *Quicksilver* has made several rapid advances, and is now quoted at 54c. in single flasks. There is talk of higher prices for *Balsam fir*, but nothing sufficiently serious to affect ruling quotations, which are steady at $2 15 to $2 25. *Peppermint oil* is pressing for sale from the West, offers as low as $1.50 baving been made for supplies of bulk, while any quantity can be had at $1,60. Case oil has been sold at $2.10 in round lots, and $2 15 is the quotation for single cases. *Ginseng* is in demand for export, at $3.25 for good North-Western. *Golden seal* is quiet, but firm, at 18c. to 19c. Excited reports are heard from the North-west as to the *Senega* crop, the cold weather in Manitoba having, so it is stated, injured the plants and cut short the gathering. The same authority states that the total Manitoba crop is estimated at 200,000 lbs., or 50,000 lbs. less than last year. Sales of Minnesota root for export, amounting to 2,000 lbs., are reported at 25c. For Manitoba root 24c. to 25c. is quoted on the spot.

The Liverpool Oil and Chemical Market.

Our Liverpool Correspondent writes on October 23: "The market to-day shows no marked change; the tone during the week has been quiet, but confident, users buying sparingly and with caution. With export buyers the case is different, and many cargoes of heavy chemicals are being shipped from Liverpool and Fleetwood for America. This refers more particularly to soda, sulphur, salt, and bleaching-powder. *Acids*: no change in price. *Soda*: *Ash*—prices rule for 58 alkali from 3*l*. 7*s* 6*d*. to 3*l*. 15*s*. per ton; *Caustic*—prices remain at 6*l*. 5*s* to 7*l*. 5*s*, according to strength; *Bicarbonate*, according to quality, 4*l*. 15*s*. to 6*l*. 10*s*. per ton; *Crystals* are firm at 2*l*. 7*s*. 6*d*. per ton, f.o.b. *Sal-ammoniac*, no change; *Sulphate of ammonia*, firmer at 2*s*. 6*d*. advance. *Potash*: *Prussiate*, rather firmer at $\frac{1}{4}$*d*. per lb advance; *Chlorate*, more inquired after, at 4$\frac{1}{2}$*d*. per lb.; *Bichromate*, firm at 4$\frac{5}{8}$*d*. per lb.; *Saltpetre*, steady at 23*s*. per cwt. *Copperas*, firm at 1*s*. per ton advance; *Bleach*, scarce at 6*l*. 12*s*. 6*d*. per ton. *Copper sulphate*, firm at 16*l*. 10*s*. per ton; *Phosphorus*, no change; *Naphtha*, easier; *Benzole*, more in request. *Palm oil*: the demand is quieter than last week, but the sales reported are at late rates. *Olive oil*: a steady business is passing at fully late rates in Candia, but Levant and Naples are easier. *Linseed oil*: no change, at 21*s*. per cwt. *Cottonseed oil*: quieter, at 17*s*. 6*d*. per cwt. *Japan fish oil* is in evidence again at 13*s*. 6*d*. per cwt. *Petroleum oil* remains quiet, at 5*d*. to 5$\frac{7}{8}$*d*. for Russian and 5$\frac{3}{4}$*d*. to 7*d*. for American.

The Smyrna Opium-market.

Our mail reports concerning the opium crop in Turkey are dated up to October 15. A few days before that date heavy rains fell, not only in Smyrna, but in most of the opium-growing districts, and this has aided to depress the market, because it is a very favourable sign for the success of the autumn sowings, especially as rain does not usually fall so early in the season. The market has been exceedingly quiet, chiefly on account of the Jewish holidays, the bulk of the opium business being in the hand of Jews. Nominally the quotations on October 12 were as follows:—*Karahissar talequale*, 7*s*. 3*d*., *Yerli ditto* 7*s*. 3*d*. to 7*s*. 4*d*., *Current ditto* 7*s*, *Fair seconds* 7*s*. 2*d*., and fine qualities for the Dutch-Indian Government 7*s*. 8*d*. per lb. It appears that the bulk of the 30 cases new *Karahissar* opium recently purchased by the Duch-Indian Government have been rejected as not being up to standard. Up to the day before writing everytbing appeared to be in favour of a sharp decline in price, but at the last moment the Smyrna agents of the Philadelphia Chemical Factory came forward and bought 25 cases of *Yerli Talequale* and *Current* at the parity of 7*s*. and 7*s*. 2*d*. per lb. f.o.b., respectively. This business has imparted more steadiness to the market, and speculators again show signs of coming forward. Under those circumstances the course of the market in the immediate future is extremely uncertain, the general indication pointing to a small advance up to 7*s*. 2*d*. to 7*s*. 6*d*. according to quality. The arrivals up to October 12 were 2,606 cases, against 1,540 at the corresponding date of last season.

The Liverpool Market.

Our Liverpool correspondent, writing on October 23, says that in *Acacia gum*, *Soudan sorts* are meeting with more request, and some rather off-colour parcels have been sold at 49*s*. to 50*s*. Medium grades are becoming scarce, and a good many inquiries have been experienced without resulting in business, owing to the absence of stock. *Guinea grains* are somewhat easier, and 43 bags have realised 17*s*. per cwt., but holders of other parcels want more money. *Beeswax* has been in better demand, 37 ballots of *Gambia* (West Coast Africa) selling at 6*l*. 15*s*., and a trifle less bid for more was refused. *Chilian beeswax* is very firmly held at late rates. A parcel of *Chinese beeswax* was offered at auction, but failed to find buyers at any price. *Kola-nuts* bave been attracting attention, large sales of good dry having been made at 7$\frac{1}{4}$*d*. to 8$\frac{1}{4}$*d*. per lb. for ordinary to good dry, while 6*d*. has been paid for fresh.

Correspondence

Memoranda for Correspondents.

In letters for publication correspondents are requested to express their views as concisely as possible.

Correspondents should write on one side of the paper only, and devote a separate piece of paper to each subject of inquiry.

The name and address of the writer should accompany all communications with, if desired, a distinctive nom-de-plume.

Medicines and Metallic Substances.

Sir,—The following incident shows the necessity of using glass measures or porcelain spoons for the administration of medicines. A lady brought back a bottle of medicine, saying there was some mistake in it, because on pouring out a dose it emitted a horrible smell and had a filthy taste. I examined it and found nothing the matter, and assured her it had been correctly dispensed. She did not seem satisfied, so I measured a dose in a glass and she took a vigorous "sniff," and with a look of surprise remarked, "That's all right; I cannot detect the horrid smell." The reason she had previously done so dawned upon me. I asked her "if she was not in the habit of taking her medicine from a metal spoon," and had the answer, "Yes." The medicine being a very concentrated one (containing amongst other things ʒii. ac. hydrochlor. dil.), I showed her its action on metal, and explained that it was the gas evolved which caused the disagreeable odour. She immediately purchased a graduated glass. I am daily expecting to have to repeat the mixture, for should it disagree with her, I feel certain she is assured that she has discovered a valuable cleansing-fluid for her culinary utensils, by the amazement she showed at its action on a very dirty penny.

Yours faithfully,

460 Oxford Street, W. Arthur F. Wilson.
October 17.

Formalin as a Preservative.

Sir,—Some time back I noticed in a copy of The Chemist and Druggist (which, by the way, I read regularly with much interest and advantage) that the substance called "formalin" was the very best preservative for beer and cider.

Being very fond of cider, and having a considerable, orchard, and pressing a great deal each year, I bought 1 lb. of "formalin," and tried it in various proportions, but have not succeeded in keeping my cider with it; on the contrary, every one of the packages which I put up with the "formalin" has spoiled. I tried it in the proportion of 1 oz. and upward to 4 oz. to a barrel of 40 gallons of cider, and used perfectly pure and fresh cider.

I had before that used salicylic acid, but I do not like it, and would like to find something to take the place of it if I could. I therefore hailed the information about "formalin" with the hope that it might be just what I wanted.

I now read in your number of September 28, on page 510, that you still state "formalin" is much better for cider than the sulphites, and, by inference, better than anything else, and this leads me to believe that I have not used the substance right. Will you kindly favour me with the correct percentage or quantity of "formalin" to use to a barrel of cider, the barrel containing 40 wine gallons; and, if there is any special manipulation required, kindly favour me with such information thereon as may enable me to make a success with this article, thus greatly obliging one of your old readers?

Yours truly,

Columbus Borax Co., 10 Cedar Street, E. C. Calm.
New York, October 9.

LEGAL QUERIES.

172/70. *K. C.* asks:—"Is it within the limits of an associate's (of the Pharmaceutical Society) privileges to style his establishment 'Dispensing Pharmacy?'" [We think it is. The only objection that could be raised against it would be by the Pharmaceutical Society, who would have to establish that it was a name, title, or sign which implied that the user was a pharmaceutical chemist.]

174/23. *Ajax* asks if a penalty attaches to the sale of an article as chlorodyne which does not conform to any of the recipes in Cooley or which contains no morphia? An answer will be found in a report of Mr. A. H. Allen, the Shefficld public analyst, quoted in *C. & D.*, January 12, 1895. Mr. Allen had some chlorodyne lozenges to analyse, but he said practically there was no standard for chlorodyne, and therefore it was impossible to say what chlorodyne lozenges should contain. We had previously reported a conviction, however, for the sale of chlorodyne lozenges containing no morphia.

174/69. *A. B.*—A young lady can only become a qualified dispenser by passing the Minor examination of the Pharmaceutical Society. She can dispense for a medical man without that certificate. She can only get to know how to do it by practice.

176/10. *Pharmacists.*—The only way to ascertain whether any particular name has been registered as a trade-mark is by searching at the Trade-marks Office, Southampton Buildings, Chancery Lane. A fee of 1*s.* per quarter-hour is charged. If not registered it does not certainly follow that the name can be used if it is already that of a similar trade article. For example, Mr. Eno, after his mark "fruit-salt" was struck off the register, got an injunction against a manufacturer who was selling a "fruit-salt baking-powder." The Judges held that the public might suppose the baking-powder was made with Eno's fruit-salt. One of Judges said there would be no objection to a "fruit-salt umbrella," or some other title, where the mistake could not occur.

177/12. *Glamford.*—The Comptroller gives you his reason for refusing to register your word as a trade-mark. You can, if you like, claim a hearing, at which you or your agent may discuss the refusal with the Comptroller. He will then give you his objections more fully. If he still persists in refusing registration you can appeal to the Board of Trade; but it is not likely to be of much use.

176/58. *Amalgam*—We do not ourselves consider that the description of your establishment as a "dental depôt" is an infringement of the Dentists Act, nor do we believe any competent Court in the land would hold it to be so. But there are some curiously extravagant ideas about their rights held by certain dentists in official quarters, and we cannot, of course, guarantee that they may not some day test their views by an action.

MISCELLANEOUS INQUIRIES.

Back numbers containing formulæ, educational or other specific information can be obtained from the Publisher.

N.B.—We destroy anonymous letters. We do not answer queries of the kind here dealt with by post. We ask that separate queries shall be written on separate sheets of paper.

163/11. *Nicholson.*—Petroleum Emulsion:—

Oil of sweet almonds	ʒiij.
Pure white petrolatum or vaseline	ʒv.
Mucilage of dextrin (1 in 3)	ʒv.
Syrup of tolu	ʒij.
Lemon, rose, or almond essence	q.s.
Water to	ʒxvj.

Mix.

Place the mucilage in a warm mortar; melt together the oil and petrolatum, and, while still warm, add gradually to the mucilage, ensuring that each portion is thoroughly incorporated before adding the next; astly, add flavouring, syrup, and water q.s.

We give mucilage of dextrin in the formula. It is often used in America; but an equally good, if not better, emulsion may be made by using the yolks of two large new-laid eggs. Rub them in the mortar, and add gradually, when cool, the mixture of oil and petrolatum; then water and syrup, mixed very gradually; and, lastly, the flavouring. The petrolatum is broken up by the emulsifying of the oil, and in this way a considerable quantity may be suspended in a creamy emulsion, and remain fairly permanent. See also page 898, December 22, 1894.

163/38. *Verax.*—Diarrhœa mixture like your sample:—

Tinct. opii	℥j.
„ catechu	℥iv.
Ess. menth. pip.	℥j.
P. cretæ aromat.	℥ij.
Aq. ad	℥vj.

℥ss. for a dose every three or four hours.

169/7. *Tragacanth.*—We should think about 30*l.* per annum indoors, or about 30*s.* a week outdoors, would be about the salary to pay in the case you name. If you pay a commission besides, which is a wise course, we should advise you to pay it on the net profits of the branch, so that your interests and his would be identical. But you had better get a solicitor to arrange terms, or you may commit yourself to an agreement which will virtually be a partnership.

169/41. *H.*—Emulsio Petrolei.—See answer to "Nicholson," above.

168/46. *Kino.*—Menthol Embrocation:—

Menthol	℥iij.
Lin. camphor. co.	℥j.
Lin. opii	℥ij.

M. et solve.

To be well rubbed in with the fingers to the painful parts, or, if very tender, paint over with a camel's-hair brush.

163/21. *A. G.*—Colouring Billiard balls.—The protochloride of tin, and then strong solution of cochineal, is certainly the best method for colouring ivory balls, the secret being to leave them a sufficiently long time in each solution. The cochineal solution may be used warm, but not too hot or boiling, else the surface of the ball is apt to crack. Are you certain the ball which would not take the colour is really ivory, as various forms of artificial ivory and xylonite are being used nowadays in place of the genuine article? These are coloured while in the process of preparation, and will not readily take up the colour like ivory. You might use in such cases an aniline red, dissolved in spirit, and paint it on. This will not be permanent, but can be readily renewed. Should the ball be really ivory, it might be well to immerse it for a time in a fairly strong alkaline solution of hypochlorite of soda, made by dissolving washing-soda in water and adding some chloride of lime, washing well with cold water to get clear of the chlorine, drying, and then using the tin and cochineal solutions.

168/15. *A. S.*—To Cut Hock bottles for Lamps.—It is surprising that you have not been able to manage with a diamond. If the bottle were fixed in a lathe, using the diamond upon the rest like a graver, you should have no difficulty, with a little practice, in obtaining a clean, smooth cut. The method with wire for cutting glass bottles is to fix the soft-iron wire tightly and smoothly round the bottle; heat to a bright red heat by means of a spirit-lamp, or a Bunsen gas-jet, and immediately plunge the bottle quickly into a pail of cold water. Sometimes three or four turns of soft twine or worsted, saturated with turpentine, and set on fire, may be used instead of the wire. The one precaution to be observed to ensure success is to be certain the bottle is thoroughly dry, outside and inside, before heating the wire, as a drop of moisture may send the crack in any direction but the one intended.

169/54. *Bonus.*—You might let us see the newspaper cutting. We have no recollection of the lawsuit which you say was brought against us.

140/51. *Julep.*—Egg-julep containing Eggs.—Two eggs to be rubbed up in a mortar with 1 oz. of glycerine of borax and 20 gr. of salicylic acid; add 3 oz of aqua meliis, and water to 1 pint Strain through wet calico or double fold of wet lint. Books upon Materia Medica and Therapeutics.—Scorsby-Jackson's "Materia Medica" (Hill & Stockman's edition) and Squire's "Companion to the B.P." (latest edition) are two of the most useful books for reference published at a reasonable price.

163/16. *Italia.*—Black Hair-dye in one Bottle, not containing nitrate of silver:—

Pyrogallic acid	℥j.
Citric acid..	gr. v.
Glycerine of borax	℥iij.
Distilled water to	℥iij.

Mix.

If the shade produced is not sufficiently dark, increase the quantity of pyro. Recommend it to be applied thoroughly to the hair every night. An alkaline hair-wash, such as Erasmus Wilson's, may be used every morning as an ordinary dressing.

168/51. *Ulex* sends out the following Baking-powder, and wishes to know if it can be improved upon:—

	Oz.
Bicarbonate of soda	2
Tartaric acid..	1½
Rice-flour	4

The formula seems a fairly good one, a great deal depending upon the price obtained. The only objections we see to it are that the rice-flour is in rather large proportion, and the acid a shade too little. The soda being rather in excess may tend with certain flours to darken the bread (8½ parts soda and 7½ parts acid being the ideal quantities to form a neutral powder); but if carefully prepared, the soda and acid being carefully dried before mixing, it ought to give a good average powder. See also page 432, March 19, 1892, and page 622, October 22, 1892.

174/67. *Rufus.*—We have not analysed the Tooth-paste; but you will find numerous formulæ in back numbers—*e.g.*, *C. & D.*, September 1, 1894, page 359, and June 8, 1895, page 809.

171/19. *Snapshots.* — Hydroquinone Developer. — See *C. & D.*, July 28, 1894, page 134.

174/14 *Boron.* — Use Weed killer. See *C. & D.*, August 17, page 306.

174/61. *Shemus.*—Asbestos is insoluble, as such, in any known liquid.

168/2. *J. P.*—Concentrated Waters (1 to 40).—A general formula is given, with directions, at page 775, June 3, 1893. See also recent communications in the *C. & D.*

169/4. *J. B.*—A good Ginger-wine:—

Bruised ginger..	12 oz.
Water	10 galls.

Boil for half an hour, and add 28 lbs. of sugar; continue boiling until dissolved. Cool, and strain the liquor into a cask containing fourteen lemons, sliced, and about 1½ pint of brandy. Add yeast, and ferment. Bung it up in the cask for three months, strain, and bottle.

See also page 98, July 15, 1893, for green-ginger wine.

171/56. *R. A. W.*—For Grinding and Sifting Cream of Tartar or Tartaric Acid stone rollers and hair sieves are suitable; on the large scale special machinery is used, differing in details with different grinders.

171/27. *F. J. B.*—Starch Gloss for Linen:—

Powdered borax	5j.
„ spermaceti	5j.
„ French chalk	5vj.

Mix and sift.

170/21. *Kinia.*—Coca wine.—We are surprised you have been unable to find formulæ in back numbers. We have referred to several—viz, vol. xlvi., page 879; vol. xlv., pages 27 and 663; vol. xli., page 501. The usual strength is 1 oz. of the leaves or of the fluid extract to each pint of wine. A bright port is the usual wine employed. The wine ought to be kept for a month before bottling.

171/14. *D. G. Coy.*—Preserving Eggs.—The usual substances for preserving eggs are saturated solution of salicylic acid in water, milk of lime, saturated solution of common salt, salt by itself, solution of borate of calcium, and 5 per cent. solution of silcate of soda. The eggs should be carefully selected, and packed in watertight boxes; the solution poured in until thoroughly covered. Covering with vaseline or melted paraffin has also been recommended.

163/19. *P. H. F.*—Dictionaries of Medical Terms suitable for your purpose:—Quain's "Dictionary of Medicine" (Longmans), 2 vols. 40*s*; Mayne's "Medical Vocabulary" (Churchill), 10*s*.; Fowler's "Medical Vocabulary" (Renshaw), 12*s*. 6*d*; Tanner's "Index of Diseases" (Renshaw), 10*s*. 6*d*. This last is an exceptionally useful work. The Diary for 1893 also contains much that you will find useful. The English meaning of the term "pyrexia" is "a burning heat," and is a term applied to a highly-fevered condition with a high temperature and a dry skin. Churchills publish a 2*s* 6*d*. "Dictionary of Medical Terms," which gives only the meanings of the words, and for that purpose you will find it all that you require.

174/30. *Bouquet.*—The Perfume has the vanilla odour too decided. It would improve by keeping for a month or two in a warm place, with a little orris-powder added and shaken up occasionally; then filter before bottling. Try this modification:—

Vanilla	℥ij.
Tonca bean	℥ij.
Oil of bergamot	℥iij.
Oil of neroli	℥j.
Otto of rose	℥j.
Extract of jasmine	℥xiij.
Spirit of wine 60 per cent.	℥lxv.

Add 2 oz. pulv. iridis and macerate for a month, shaking occasionally.

169/23. *Wilts.*—Remedy for Veterinary Purposes, suitable for horses, cattle, sheep, &c., for colic, colds, scour, pain after calving, lambing, &c.:—

Tr. opii	℥j.
„ hyoscyam.	℥j.
Spt. æther. nit.	℥j.
Sodæ bicarb.	℥vj.
Pulv. zingiber.	℥ij.
Aq. camph. ad	℥vj.

Mix. Label "Shake the bottle."

For horses—colic: one-half for a dose, repeat in one or two hours if necessary; for colds: one-half at night, and a hot mash some time after. For cattle, ℥j. to ℥iss. for a dose. Sheep and calves, 2 teaspoonfuls to 1 tablespoonful in the case of scour, to be given in rice and cold water stirred together twice a day. Aloes would not be an advisable addition for such a general brand put up as a stock remedy.

169/23. Healing lotion for Horses, suitable for sprains, bruises, sore throats, cuts, and wounds:—

Solution of lead	℥j.
Essential oil of camphor or cheap eucalyptus oil	℥iv.
Vinegar	℥vij.
Sesame oil to	℥xx.
Yolks of two fresh eggs.	

Rub the yolks in a mortar, add gradually the sesame oil mixed with essential oil, then the vinegar, and lastly the solution of lead.

The oil may be coloured with alkanet if considered advisable.

176/44. *Influenza.*—You will find a number of formulæ for influenza-mixtures in this journal, January 5, 1895.

173/68. *Antipyrin.*—We do not know what is used by Wood-carvers for taking Impressions, but should fancy that a soft dental wax or moulding wax, coloured with alkanet would be very suitable for the purpose. A suitable formula would be that given under Dental Modelling-composition, page 351, August 27, 1892; but for your purpose increase quantity of almond oil to ½ oz. See also page 371, Diary, 1894, where two formulæ are given.

INFORMATION SUPPLIED.

For this section we are always glad to receive from subscribers brief notes on practical subjects, recipes which have been found good in practice or which have required modification, and hints or fresh ideas on any pharmaceutical or trade matter.

158/57. Plumbite of Soda, a test for wool, is a solution of lead oxide in soda ley, obtained by heating the two together. It distinguishes wool in silk by acting upon the sulphur in the wool, developing a black colour. It is applicable only to white or light-coloured fabrics.

Adelaide.

INFORMATION WANTED.

The Editor invites, on behalf of inquiring subscribers, postcard replies to the following:—

172/69. Makers of small perle-making machines.

175/64. English agent for Minard's liniment.

169/5. Makers of plugs for ammonium chloride-inhalers

Will "Atra Cura" and the author of "A Pharmaceutical Major-General" kindly send us their names and addresses.

Next Week.

Secretaries of societies will oblige by communicating to us as early as possible their arrangements for the coming session, and thereafter from week to week notices for this section.

Wednesday, October 30.

Brighton Junior Association of Pharmacy, at Newbury Hall, Cannon Place, at 9 P.M. Lecture, "Another World," with limelight illustrations.

Thursday, October 31.

Chemists' Assistants' Association, 103 Great Russell Street, W.C., at 8 30 P.M. Mr. John F. C. Snell on "The Commercial Application of Electrical Energy." At the conclusion of the paper the members are invited to visit the St. Pancras Electric Light and Power Station, and see many points of the paper practically illustrated.